frontiers | Research Topics

Women and substance use: Specific needs and experiences of use, others' use and transitions towards recovery

Edited by
Lucy Webb, Guilherme Messas, Sarah Fox and Anette Skårner

Published in
Frontiers in Psychiatry

ISSN 1664-8714
ISBN 978-2-8325-4119-7
DOI 10.3389/978-2-8325-4119-7

About Frontiers

Frontiers is more than just an open access publisher of scholarly articles: it is a pioneering approach to the world of academia, radically improving the way scholarly research is managed. The grand vision of Frontiers is a world where all people have an equal opportunity to seek, share and generate knowledge. Frontiers provides immediate and permanent online open access to all its publications, but this alone is not enough to realize our grand goals.

Frontiers journal series

The Frontiers journal series is a multi-tier and interdisciplinary set of open-access, online journals, promising a paradigm shift from the current review, selection and dissemination processes in academic publishing. All Frontiers journals are driven by researchers for researchers; therefore, they constitute a service to the scholarly community. At the same time, the *Frontiers journal series* operates on a revolutionary invention, the tiered publishing system, initially addressing specific communities of scholars, and gradually climbing up to broader public understanding, thus serving the interests of the lay society, too.

Dedication to quality

Each Frontiers article is a landmark of the highest quality, thanks to genuinely collaborative interactions between authors and review editors, who include some of the world's best academicians. Research must be certified by peers before entering a stream of knowledge that may eventually reach the public - and shape society; therefore, Frontiers only applies the most rigorous and unbiased reviews. Frontiers revolutionizes research publishing by freely delivering the most outstanding research, evaluated with no bias from both the academic and social point of view. By applying the most advanced information technologies, Frontiers is catapulting scholarly publishing into a new generation.

What are Frontiers Research Topics?

Frontiers Research Topics are very popular trademarks of the *Frontiers journals series*: they are collections of at least ten articles, all centered on a particular subject. With their unique mix of varied contributions from Original Research to Review Articles, Frontiers Research Topics unify the most influential researchers, the latest key findings and historical advances in a hot research area.

Find out more on how to host your own Frontiers Research Topic or contribute to one as an author by contacting the Frontiers editorial office: frontiersin.org/about/contact

Women and substance use: Specific needs and experiences of use, others' use and transitions towards recovery

Topic editors

Lucy Webb — Manchester Metropolitan University, United Kingdom
Guilherme Messas — Faculty of Medical Sciences, Santa Casa of Sao Paulo, Brazil
Sarah Fox — Manchester Metropolitan University, United Kingdom
Anette Skårner — University of Gothenburg, Sweden

Citation

Webb, L., Messas, G., Fox, S., Skårner, A., eds. (2023). *Women and substance use: Specific needs and experiences of use, others' use and transitions towards recovery*. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-8325-4119-7

Table of contents

05 Editorial: Women and substance use: Specific needs and experiences of use, others' use and transitions towards recovery
Lucy Webb, Sarah Fox, Anette Skårner and Guilherme Messas

09 Trends in Mortality From Novel Psychoactive Substances as "Legal Highs": Gender Differences in Manner of Death and Implications for Risk Differences for Women
Lucy Webb, Xin Shi, Christine Goodair and Survjit Cheeta

18 The Perceptions of Women About Their High Experience of Using Crack Cocaine
Saulo G. Tractenberg, Jaluza A. Schneider, Bernardo P. de Mattos, Carla H. M. Bicca, Bruno Kluwe-Schiavon, Thiago G. de Castro, Luísa F. Habigzang and Rodrigo Grassi-Oliveira

27 Long-Term Outcomes for Young People With Substance Use Problems in Outpatient Treatment: Gender-Specific Patterns
Mikael Dahlberg, Karin Boson, Mats Anderberg and Peter Wennberg

37 Taking Care of Business in a Male – Dominated Drug Economy: Income Strategies, Risks, and Opportunities of Women Who Use Drugs
Torkel Richert

52 Paying Attention to Women's Ageing Bodies in Recovery From Substance Use
April Shaw, Gerda Reith and Lucy Pickering

62 Housing Correlates in Pregnant and Parenting Women Using Methamphetamine and Accessing Psychiatric Care
Johannes Petzold, Laura Rehmet, Benjamin Weber, Maik Spreer, Maria Krüger, Ulrich S. Zimmermann and Maximilian Pilhatsch

69 Gender, Addiction, and Removal of Children Into Care
Lynda Russell, Ruchika Gajwani, Fiona Turner and Helen Minnis

77 Prevalence and Correlates of Active Amphetamine-Type Stimulant Use Among Female Sex Workers in Malaysia
Courtney J. Pedersen, Jeffrey A. Wickersham, Frederick L. Altice, Adeeba Kamarulzaman, Kaveh Khoshnood, Britton A. Gibson, Antoine Khati, Francesca Maviglia and Roman Shrestha

84 Adverse Childhood Experiences, Domestic Violence and Substance Misuse: An Action Research Study on Routine Enquiry and Practice Responses
Sarah Morton, Megan Curran and Mary Barry O'Gorman

96 Me too! A case study of gendered victimization and feminist development in a Swedish peer support organization for people with experiences of criminalization and substance abuse
Emy Bäcklin

109 Hidden GBV: Women and substance use
Eilidh Moir, Sophie Gwyther, Heather Wilkins and Gillian Boland

114 The HIV pre-exposure prophylaxis continuum of care among women who inject drugs: A systematic review
Danielle Guy, Jason Doran, Trenton M. White, Lena van Selm, Teymur Noori and Jeffrey V. Lazarus

132 Treatment providers' perspectives on a gender-responsive approach in alcohol and drug treatment for women in Belgium
Julie Schamp, Wouter Vanderplasschen and Florien Meulewaeter

145 The co-occurrence of substance misuse, domestic abuse, and child maltreatment: Can Family Drug and Alcohol Courts play a part?
Judith Harwin and Charlotte Barlow

162 Women in mid-life and older age in recovery from illicit drug use: connecting and belonging
April Shaw

173 Helping themselves and helping others: how the passage of time influences why mothers with addictions take part in research
Karen Crawford, Lynda Russell, Sharon Graham and Fiona Turner

frontiers | Frontiers in Psychiatry

TYPE Editorial
PUBLISHED 13 December 2022
DOI 10.3389/fpsyt.2022.1078605

OPEN ACCESS

EDITED AND REVIEWED BY
Lillian Gelberg,
University of California, Los Angeles,
United States

*CORRESPONDENCE
Lucy Webb
l.webb@mmu.ac.uk

SPECIALTY SECTION
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

RECEIVED 24 October 2022
ACCEPTED 29 November 2022
PUBLISHED 13 December 2022

CITATION
Webb L, Fox S, Skårner A and Messas G (2022) Editorial: Women and substance use: Specific needs and experiences of use, others' use and transitions towards recovery. *Front. Psychiatry* 13:1078605. doi: 10.3389/fpsyt.2022.1078605

Editorial: Women and substance use: Specific needs and experiences of use, others' use and transitions towards recovery

Lucy Webb[1]*, Sarah Fox[2], Anette Skårner[3] and Guilherme Messas[4]

[1]Faculty of Health, Psychology and Social Care, Manchester Metropolitan University, Manchester, United Kingdom, [2]Faculty of Arts and Humanities, Manchester Metropolitan University, Manchester, United Kingdom, [3]Department of Social Work, Faculty of Social Sciences, University of Gothenburg, Gothenburg, Sweden, [4]Faculty of Medical Sciences, Santa Casa of São Paulo, São Paulo, Brazil

KEYWORDS

women, female substance use, women's needs, women's experience, substance use, women and girls' substance use services

Editorial on the Research Topic
Women and substance use: Specific needs and experiences of use, others' use and transitions towards recovery

Problematic substance use among women is increasing, with global prevalence data indicating that 46 million women have an alcohol use disorder (1), the highest prevalence of which is located in the European region (2). Reports from the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) also show that women make up a quarter of people with illicit problematic drug use in Europe (3). Globally, approximately a third of all drug users are women, and a fifth of injecting drug users are women (4).

Historically, societal and medical responses to substance use issues were shaped based on men as the major protagonists, with women's use only acknowledged when it impacted their care-giving role (5, 6). Feminist perspectives have more recently identified how women experience drug and alcohol use, the type of substances they use, the spaces they consume substances, and their treatment and support needs (7). However, researchers and practitioners need to continue the dialogue on women's substance use in order to expand knowledge, challenge prejudices, and learn to support women in a way that is specific to their needs.

Indeed, women are often more affected by substance use than men, and more affected negatively by others' use (4). They commonly experience multiple types of disadvantage and trauma, including violence and abuse, sex-work, poverty, and mental ill-health (8). There are also unique physical health risks including breast cancer, ovulation and menstrual difficulties, early menopause, and fertility issues, as well as risks to the child in pregnancy (9, 10). Women from minority ethnic groups face additional challenges and barriers (11).

Trauma is frequently a factor in substance use among both men and women, typically used to manage the experiences of trauma (12). However, as this collection of studies demonstrates, women face a unique set of additional gender-based traumas that can further influence their use of drugs or alcohol, such as domestic abuse, coercive and controlling behavior and being forced to exchange sex for substances, often for their male perpetrators (13, 14).

Women also face unique barriers to support, and their needs may be unmet by existing services (15) because treatment and support are delivered in ways that do not meet the lived reality of their lives (6, 16, 17). Recently, advocates for substance-using women have called for a more gender-sensitive response to drug policy and support that addresses "the harms directly related to drugs and drug use but also the social and cultural determinants of drug use and health and law enforcement policies" [(5), p. 17]. This is reflected in the papers presented in this Research Topic on women and substance use.

This collection of international studies highlights the unique challenges experienced by women who use substances, and demonstrates the gender-specific contexts of their substance use including the specific risks they face, and the social, health and policy factors that impact their use, and access to treatment and support.

The evidence reported by Guy et al. illustrates the particular vulnerability of women to HIV, where women face barriers to pre-exposure prophylaxis. These barriers are linked to homelessness, sexual violence, being in a drug-using relationship, and having a child-rearing role which may contribute to reluctance to engage with services. Pedersen et al. highlight an additional risk to HIV among sex-workers using amphetamines, presenting a further harm reduction risk because of the disinhibiting effect and increased risk-taking. Both these studies also highlight problems of the lower status of women to men, especially for sex workers, and, for Pedersen et al., particularly in countries with strong cultural gender morals and criminalization of sex work.

Vulnerability to gender-based violence (GBV) is underlined in several papers. For Pedersen et al., in comparison to men, women are more likely to have an intimate partner who uses substances, be dependent on their partner for supply, and experience more physical and psychological violence within such relationships. Moir et al. report that intimate partner violence is often hidden among women affected by substance use, and may only be detected during tertiary-level risk assessment. Morton et al.'s study highlights the degree of parental substance use and adverse childhood experiences among substance-using women experiencing domestic violence. These studies suggest an iceberg of hidden GBV cases among women substance users who need proactive screening to ensure the right support is offered.

In comparison to men, Webb et al.'s study of drug-related deaths also shows women are disproportionately at risk from polydrug use and more likely than men to increase their risk by using prescribed methadone and benzodiazepines alongside illicit substances. There may also be trends in age differences for women, with smaller gender differences in risky use among younger, recreational drug use fatalities, and greater risky polydrug use among older female fatalities. Addressing aging needs among women in recovery is also highlighted by Shaw et al., who found that the emergence of physical and mental symptoms for middle-aged women in recovery requires more attention from services.

Several studies underline gender inequality for women affected by substance misuse. Russell et al. report substance-using mothers six times more likely to have children removed than substance-using fathers, and more likely to attempt suicide that women substance users without children. Richert takes a different perspective of gender difference by examining how women navigate a role in the drug economy in which men have control over income and drugs supply. His study shows women using their sexuality or adopting a professional or more masculine persona to reduce risk in securing income and drugs. Bäcklin also identifies an existing "macho culture" in peer support provision that presents unequal support for women, but also illustrates how proactive efforts to represent and empower women's voices can be effective.

Some of these studies also suggest a self-medication role for women's substance use. The study by Pedersen et al., suggests use of amphetamines in sex work to improve performance, but also to dissociate from the work, and this is also suggested by Tractenberg et al.'s study showing crack cocaine use among Brazilian women was a dissociative coping strategy for negative life experiences. Webb et al. highlight women's disproportionate high risk polydrug use that includes prescribed anti-anxiety and sedative medications, and Dahlberg et al. report young substance-using women and girls more likely to have co-occurring psychiatric problems and experiences of trauma than males on entering treatment.

Several studies in this issue investigate more gender-sensitive interventions to better address women's specific needs. In Morton et al.'s study, women using a domestic violence and substance use service had high rates of existing adverse childhood experiences (ACEs). They suggest that routine enquiry about ACEs for this population starts a process of trauma-informed service responses. Moir et al. go further to recommend that more integrated service working for women substance users experiencing GBV would ensure access to specialist support. Similarly, integrated service approaches are recommended by Petzold et al. to include access to stable housing to increase engagement with services. Harwin et al. argue that the introduction of family drug and alcohol courts may avoid current organizational silo practices through offering more holistic interventions to better support women and children through the complexities of DV, substance use and child maltreatment. Dahlberg et al. also indicate that specific

multi-dimensional and longer intervention times for young women and girls would be a more responsive approach to the greater prevalence of mental ill health and trauma among young women and girls.

Overall, gender-responsive service approaches for women are indicated by these studies, and Schamp et al.'s recommendations go further, suggesting a transformative approach that goes beyond the more reactive gender responsiveness. They argue that this could activate policy makers toward holistic strategies to address the contextual factors associated with women's substance use.

This collection underlines and adds to the evidence of the specific issues facing women substance users. Studies here show that, beyond substance-related stigma, women around the world face different and multiple pressures to use substances, and encounter structural barriers to reducing harm and accessing appropriate treatment. Societal norms of femininity and motherhood place women in a vulnerable position within their societies, exposing them to GBV, judgement and disempowerment. Many studies illustrate the whole-system mechanisms that maintain this vulnerability, and highlight the need for gender-sensitive approaches in policies and practice. Indeed, while services may adopt specific provision for women's needs, this may be seen as an add-on to male-oriented services that does not address the wider context. As suggested in Schamp et al.'s article, policymakers may need to embrace a more gender-transformative approach across services and, arguably, focus on gender justice as much as gender equity.

Author contributions

SF and LW contributed to the drafting. AS and GM contributed to the review process and finalization of the manuscript. All authors contributed to the article and approved the submitted version.

Acknowledgments

The authors would like to thank all the contributors of this Research Topic for their work and the high quality of the submitted articles.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

References

1. GBD. The global burden of disease attributable to alcohol and drug use in 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Psychiatry*. (2018) 5:987–1012. doi: 10.1016/S2215-0366(18)30337-7

2. WHO. *Global Status Report on Alcohol and Health*. (2018). Available online at: https://www.who.int/substance_abuse/publications/global_alcohol_report/en/ (accessed September 9, 2019).

3. Arpa S. *Women Who Use Drugs: Issues, Needs, Responses, Challenges and Implications for Policy and Practice*. European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2017). Available online at: http://www.emcdda.europa.eu/system/files/attachments/6235/EuropeanResponsesGuide2017_BackgroundPaper-Women-who-use-drugs.pdf (accessed September 29, 2022).

4. UNODC. *Women and Drugs: Drug Use, Drug Supply and Their Consequences*. United Nations Publication Sales No. E18.XI9. Vienna: United Nations Office on Drugs and Crime, (2018).

5. Mutatayi C, Morton S, Robles Soto N, Pálsdóttir K, Vale Pires C. *Implementing a Gender Approach in Drug Policies: Prevention, Treatment and Criminal Justice. A Handbook for Practitioners and Decision Makers*. (2022). Available online at: https://rm.coe.int/2022-ppg-implementing-a-gender-approach-in-drug-policies-a-pg-handbook/1680a66835 (accessed September 29, 2022).

6. Campbell N, Ettorre E. *Gendering Addiction-The Politics of Drug Treatment in a Neurochemical World*. London: Palgrave Macmillan, (2011).

7. Moore K, Measham F. Exploring emerging perspectives on gender and drug use. In: Mistra W, editor. *Emerging Perspectives on Substance Misuse* Chichester: Wiley-Blackwell (2013) pp. 80–97.

8. NIDA. *Other Sex and Gender Issues for Women Related to Substance Use*. National Institute on Drug Abuse website (2021). Available online at: https://nida.nih.gov/publications/research-reports/substance-use-in-women/other-sex-gender-issues-women-related-to-substance-use (accessed September 18, 2022).

9. Greenfield SF, Back SE, Lawson K, Brady KT. Substance abuse in women. *Psychiatr Clin N Am*. (2010) 33:339–55. doi: 10.1016/j.psc.2010.01.004

10. NIDA. *Substance Use in Women Research Report*. (2020). Available online at: https://nida.nih.gov/publications/research-reports/substance-use-in-women/summary (accessed September 29, 2022).

11. Fox S, Guru S, Iqbal N, Galvani S. *Substance Use Among South Asian Women - Seeking Solutions*. Faculty of Humanities, Languages & Social Science, Manchester: Manchester Metropolitan University (2022).

12. Smith P. A qualitative examination of the self-medicating hypothesis among female juvenile offenders. *Women Crim Just*. (2019) 29:14–31. doi: 10.1080/08974454.2017.1377673

13. Fox S. "…you feel there's nowhere left to go." The barriers to support among women who experience substance use and domestic abuse in the UK. *Adv Dual Diagn*. (2020) 13: 57–71. doi: 10.1108/ADD-09-2019-0010

14. Fox S. *Webinar - Club Soda Meet the Scholar: Dr Sarah Fox on Substance Use and Domestic Abuse*. (2022). Available online at: https://www.youtube.com/watch?

v=GGr38-s-Lng&list=PLghWJdRdxsgarKJACG_Dy1rFDC5wZSMch&index=9 (accessed December 05, 2022).

15. PHE. *Local Alcohol Profiles for England: Short Statistical Commentary*. (2021). Available online at: https://www.gov.uk/government/statistics/local-alcohol-profiles-for-england-lape-july-2021-update/local-alcohol-profiles-for-england-short-statistical-commentary-july-2021 (accessed September 29, 2022).

16. Fox S, Holly J. Exploring the interactions between domestic abuse, substance use and mental ill-health among women'. In: Radford L, Thiara R, editors. *Domestic Abuse Across the Life Course: Safeguarding and Prevention*. London: Jessica Kingsley Publishers. (2021).

17. Lee N, Boeri M. Managing stigma: women drug users and recovery services. *Fusio: The Bentley Undergraduate Research Journal*. (2017) 1:65–94.

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 21 April 2022
doi: 10.3389/fpsyt.2022.890840

Trends in Mortality From Novel Psychoactive Substances as "Legal Highs": Gender Differences in Manner of Death and Implications for Risk Differences for Women

Lucy Webb[1]*, *Xin Shi*[2,3]*, *Christine Goodair*[4] and *Survjit Cheeta*[5]

[1] Department of Nursing, Manchester Metropolitan University, Manchester, United Kingdom, [2] School of Maths and Information Science, Shangdong Technology and Business University, Yantai, China, [3] Business School, All Saints Campus, Manchester Metropolitan University, Manchester, United Kingdom, [4] St George's Hospital Medical School, University of London, London, United Kingdom, [5] Department of Life Sciences, Brunel University, London, United Kingdom

Introduction: This study aimed to examine drug-related deaths in the UK in which novel psychoactive substances (NPS) are an implicated substance, and to focus on female deaths in comparison with male deaths. While male overdoses dominate epidemiological statistics, there is an increase in female drug-related deaths and a narrowing of the gap between gender mortality rates which is to date unexplained.

Method: This study analyzed data from the National Programme for Substance Abuse Deaths (NPSAD) database that records drug-related deaths in the UK from coronial records. A dataset was constructed using parameters to capture all drug-related cases during the period 2007–2017 when NPS were legal and highly available in the UK, in order to capture deaths recorded among both regular and occasional drug users, and to include all cases recorded during that period regardless of NPS status in order to make comparisons. The final dataset comprised 10,159 cases, with 456 NPS-related deaths. Data for NPS and non-NPS were compared, and comparisons were made between cohorts by gender. The dataset also includes coronial narrative notes which allowed a qualitative analysis of NPS female deaths to add contextual explanation.

Results: The proportion of male NPS deaths is significantly higher than that for female NPS deaths but does not reflect the generalized difference between male and female drug-related mortality of this period studied. Demographic and outcome data by gender difference were significant for all drug-related deaths, but not for NPS-only deaths, indicating a greater homogeneity among NPS deaths by gender. Older women using NPS were more likely to have methadone or diazepam as another drug implicated and have established histories of drug misuse.

Conclusion: Where NPS have been used, differences in drug death profiles are less likely to be accounted for by gender than other demographic or behavioral differences more typically found in opiate deaths. The social and health problems of older women may be key characteristics that differentiate female deaths from male deaths. These findings also support evidence of increasing uptake of NPS among older established drug users that adds further risk to polydrug use.

Keywords: novel psychiatric substances, women, drug mortality, drug-related death, female mortality

OPEN ACCESS

Edited by:
Fabrizio Schifano, University of Hertfordshire, United Kingdom

Reviewed by:
John Martin Corkery, University of Hertfordshire, United Kingdom
Nasim Zamani, Shahid Beheshti University of Medical Sciences, Iran

***Correspondence:**
Lucy Webb
l.webb@mmu.ac.uk
Xin Shi
x.shi@mmu.ac.uk

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: *06 March 2022*
Accepted: *24 March 2022*
Published: *21 April 2022*

Citation:
Webb L, Shi X, Goodair C and Cheeta S (2022) Trends in Mortality From Novel Psychoactive Substances as "Legal Highs": Gender Differences in Manner of Death and Implications for Risk Differences for Women. Front. Psychiatry 13:890840. doi: 10.3389/fpsyt.2022.890840

INTRODUCTION

Most acute drug-related deaths globally are among males more than females (1). However, in the United Kingdom (UK) and elsewhere the gap between male and female rates of acute drug-related deaths is closing. Acute drug-related deaths for the purposes of this study are those associated with overdose and acute intoxication rather than from secondary related diseases such as hepatitis, cardiac conditions and obstructive pulmonary disease.

Evidence for drug-related mortality causes and circumstances often overshadows female mortality due to the disproportionate ratio between genders, and the not so uncommon practice of "controlling for" gender, i.e., excluding female deaths or not examining gender differences in drug mortality (2). Opiates in overdose also dominate as the main cause of death in population statistics, again overshadowing circumstantial and secondary causes. Indeed, controlling for gender itself suggests a different profile of female drug-related death, as might controlling for, or at least exploring in more detail, overdose deaths where opiates are implicated, which could reveal commonly overshadowed factors associated with drug deaths.

While male overdoses dominate epidemiological statistics, there is an increase in female drug-related deaths and a narrowing of the gap between gender mortality rates (1), and this is to date unexplained. In Scotland, which currently records the highest rate of drug-related deaths (DRDs) per capita in Europe (3), the gap forDRDs between genders has been narrowing since 2016/8, with a reported 212% increase in female DRDs against a 75% increase in male DRDs (4). The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) indicates that the ratio difference between girls and boys aged 15–16 has been narrowing in Europe (5), and drug deaths among women between 30 and 64 has increased by 260% in the United States (6).

Factors implicated in the rise are suggested to be greater accessibility of opiates, polydrug misuse and polypharmacy (prescribed medications) (7), and impacts from psychosocial and socio-economic pressures that disproportionately affect women (8). The increase in fentanyl prescribing in the United States is likely to be skewing the global rates of opiate use and mortality among women (9), but other national data indicate this may be symptomatic of other female-specific trends, and that opiate prescription availability is merely highlighting this issue. Tweed et al. (4) suggest that the aging cohort of drug users, accompanied by increasing physical and mental health problems, may affect women's vulnerability to DRD more than men, as too, they suggest, might changing patterns of drug use, with deaths with methadone implicated being slightly higher in female DRD than male DRD in Scotland. The NPSAD surveillance programme has recorded gender differences in types of drug implicated in deaths across England and Northern Ireland, showing male deaths to be most associated with heroin, and females deaths most associated with other opiates and opioid analgesics (10). In comparison with male DRDs, female DRDs proportionately involved more antidepressants, hypnotics and sedatives, methadone and antiepileptics (i.e., gabapentin), and more likely judged to be "suicide" or "undetermined" than male deaths (10).

The rise in female substance use and mortality has coincided with the rise of novel psychoactive substances (NPS) and increased availability of these substances across Europe and, increasingly, globally. These substances, often known as designer drugs or sometimes legal highs, may mimic the effects of illegal substances while evading national drug laws. Wastewater analysis indicates that NPS use has grown in Europe and increasingly around the world (11). Globally, nation states have changed legal systems to take account of the manufacturers' ability to tweak synthetic compounds, however, the illegality of the substances is proving to be little deterrent to use. Availability has switched from open retailing of legal highs to darknet ordering (12) with synthetic cannabinoids proving to be the most popular NPS, predicted to take over international drugs markets (13, 14), making them one of the most easily accessible psychoactive substances in the illicit drugs market.

This study aimed to examine drug-related deaths in the UK in which NPS is an implicated substance, and to focus on female deaths in comparison with male deaths. We are particularly interested in not only examining variables related to cause of death and substances implicated but to examine the circumstances of death, using the narrative evidence from coroners' reports. In this way, we aim to interrogate qualitatively the differences between male and female drug-related deaths and so explore explanations for differences in behavior and cause and manner of death.

METHODS

Data Source

The National Programme on Substance Abuse Deaths (NPSAD) collates coronial, Procurator Fiscal and Scottish Crime and Drug Enforcement Agency reports on deaths in the UK where a psychoactive substance is implicated or a controlled drug is present at post mortem. The NPSAD programme was established to provide surveillance data to inform policymakers, commissioners and service providers to emerging drug use patterns and to support prevention initiatives in tackling drug-related deaths in the UK. Established in 1997, the NPSAD database has maintained this record with coverage across England, Wales, Northern Ireland, Scotland (until 2011) and the Crown dependencies of Guernsey, Jersey, and the Isle of Man. Data recorded for each case includes demographics, jurisdiction, specific location of death, drugs present post mortem (and concentrations), drugs implicated (i.e., found at the scene and drugs at post mortem considered to be implicated in the death), medically determined cause of death (ICD10 codes), coroner's verdict, prescribed psychoactive medications and mental health status, as determined by additional information from the reporting authority, prescribed medication and textual analysis of narrative reporting. The database also contains notes from coroners' narrative reports giving details of the circumstances of the death as obtained from police and witness reports.

The Dataset

The dataset was extracted from the NPSAD database. We were particularly interested in constructing parameters to capture all drug-related cases during the period when NPS were legal and therefore highly available in the UK to both regular and "recreational" or occasional drug users. Date parameters were therefore set to include all NPS deaths over a 10-year period up to the implementation of the Psychoactive Substances Act (2016) (2007–2016) and to include all cases recorded during that period regardless of NPS status. The dataset includes drug deaths coverage of approximately 75% of UK regions, reporting inquest cases where one or more psychoactive substances is directly implicated in the death (found at post mortem at significant levels), or where a drug listed in the Misuse of Drugs Act (1971) is found to have been used at the scene of death.

Cases were excluded where no drug was implicated or present or where only alcohol was implicated or present. This excluded deaths that were clearly not associated with the intake of a psychoactive substance, such as death occurring during drug dealing activity (i.e., inter-gang shooting) or lawful killing, but included trauma associated with drug-impaired judgement such as road traffic accidents, drowning or suicide. Cases were retained if most of the relevant data were available, with missing values for a small proportion of cases for some demographic variables, living arrangements, and if known to be a drug user. The final dataset comprised 10,159 cases, with 456 NPS-related deaths.

Methodology and Analysis

Categorical demographic variables were collapsed into bivariates, including gender. The ethnicity variable contained a large proportion of missing values or unreliable classification and was therefore excluded from the analysis.

Cases of NPS deaths were compared to cases where no NPS substances were implicated or found at post mortem. This was an observational study with analysis based on proportions and ratios to give point estimates. Measures of association between variables for non-parametric distributed data were applied using Kendall's Tau-b. Regression analysis was applied to confirm levels of association. Gender comparisons for age and mental health history were conducted using one-way ANOVA. Analysis was performed using SPSS 27.

RESULTS

Profile of Cases

Table 1 shows the profile of cases for NPS and non-NPS deaths by relevant demographic variables. There are significant differences across democratic variables and outcomes except where a person is or is not known to be a drug user.

The proportion of male NPS deaths is significantly higher than that for female NPS deaths (5.1–2.7%). The association between NPS and gender is statistically significant (Kendall tau-b $p < 0.001$). Odds ratios indicate that NPS death risk for males is 1.897 times more than that for females (OR = 1.897, 95%CI = 1.46–2.47). This gap does not reflect the generalized difference between male and female drug-related mortality during this period which would more typically be around 4:1 up to 2016 (15), and represents a narrowing of rates by gender where NPS are implicated.

Comparison between NPS and non-NPS variables indicates that NPS cases are significantly more likely to be employed (or be a student/pupil) than non-NPS cases ($p < 0.01$) and have stable living arrangements ($p < 0.01$). Odds ratios indicate that, while most drug-related deaths occur in a home environment, NPS deaths are less likely to occur in a home environment in comparison with non-NPS deaths (OR = 0.61, 95% CI = 0.45–0.83). The association between NPS and place of death is statistically significant (Kendall tau-b, −2.66, $p < 0.05$), but the relationship is weak.

Gender

Gender comparisons for the whole cohort show significant differences across demographics and outcomes (**Table 2**), but no significant differences were found when analysis was restricted to cases in which an NPS is implicated in the death. Among NPS cases, 68.7% females were 38 years or under, in comparison with 69.2% males; 96% of females had stable living arrangements in comparison with 95% of males; known drug user recorded as 72.5% female and 75.0% male. Only unemployment (female = 60.7%; male = 49.6%) and death in a public place (female = 8.7%; male = 15.8%) indicated any notable gender difference without significance. This finding from comparison between whole cohort and NPS-only cases suggests a different profile of drug-related deaths and a homogenisation of drug-taking behavior between genders when NPS are involved. This narrowing is highlighted by restricting analysis by drug type; when the majority of opiate-related deaths are reduced.

Gender Differences by Substance

Analysis of gender differences for the whole cohort showed significant higher female proportions for anti-depressants implicated and prescribed, hypnotics/sedatives implicated and prescribed, methadone implicated and diazepam prescribed (See **Table 3**). This reflects contemporary and recent findings for substances associated with female DRDs. However, an exploration of NPS cases by gender showed no significant differences between gender proportions except for methadone implicated (females = 20.0%, males 9.0%, OR = 1.218, (95%CI = 1.02–1.45) (Kendall tau-b $p < 0.025$). There is also a small significant difference in implicated methadone ratio for females for the whole cohort (females = 24%, males = 22%) (Kendall tau-b $p < 0.047$), but this difference is more significant among NPS deaths ($p < 0.025$), showing that, where a NPS is used, methadone is more likely to also be used by females than males. Of female deaths with methadone implicated, nearly two thirds also had diazepam implicated, but only two NPS cases were prescribed diazepam, and only one case prescribed methadone. This also suggests that many women using NPS are more likely than men to also be sourcing illicit depressant/sedating medication.

Low numbers of NPS female cases reduces the reliability of analyses of several substances, including infrequently occurring substances. During this period of developing NPS use, up to their

TABLE 1 | Profile of cases by NPS death status[†].

Category	Bi-variate	NPS implicated or at PM *N* (%)	No NPS implicated or at PM *N* (%)	Kendall tau-b (OR, CI 95%)
Gender	Male	389 (85.3)	7,313 (75.4)	5.62** (1.90, 1.5–2.5)
	Female	67 (14.7)	2,390 (24.6)	
Age	≤38	315 (69.1)	4,495 (46.4)	9.34*** (2.59, 2.11–3.16)
	>38	141 (30.9)	5,201 (53.6)	
Living arrangements	Stable	393 (95.6)	7,959 (91.0)	4.32** (2.17, 1.34–3.50)
	Unstable	18 (4.4)	790 (9.0)	
Employment	Employed	198 (48.9)	2,805 (31.9)	−6.40** (0.49, 0.41–0.60)
	Unemployed (inc. retired, student, other)	207 (51.1)	5,985 (68.1)	
Place of death (public place vs. home)	Public (including hospital)	52 (14.9)	750 (9.7)	−2.66* (0.61, 0.45–0.83)
	At home (inc. all domestic settings)	298 (85.1)	6,998 (90.3)	
Known drug user (excludes "not known")	Yes	233 (74.7)	5,554 (74.2)	0.19 (1.03, 0.79–1.33)
	No	79 (25.3)	1,931 (25.8)	

[†] *Excludes missing values. *p < 0.05, **p < 0.01, ***p < 0.001.*

TABLE 2 | Whole cohort demographic and outcomes by gender[†].

Category	Bi-variate	Females *N* (%)	Males *N* (%)	Kendall tau-b (OR, CI 95%)
Age	≤38	995 (40.5)	3,815 (49.6)	7.85** (1.4, 1.3–1.6)
	>38	1,459 (59.5)	3,885 (50.4)	
Living arrangements	Stable	2,110 (95.0)	6,242 (90.0)	−8.4** (4.8, 0.39–0.59)
	Unstable	112 (5.0)	696 (10.0)	
Employment	Employed	506 (23.0)	2,497 (35.7)	−11.7** (0.54, 0.48–0.60)
	Unemployed (inc. retired, student, other)	1,691 (77.0)	4,501 (64.3)	
Place of death (public place vs. home)	Public (including hospital)	78 (4.1)	724 (11.7)	−12.3** (0.32, 0.23–0.41)
	At home (inc. all domestic settings)	1,834 (95.9)	5,462 (88.3)	
Known drug user (excludes "not known")	Yes	1,147 (62.6)	4,640 (77.8)	12.0*** (2.1, 1.8–2.3)
	No	686 (37.4)	1,324 (22.2)	

[†] *Excludes missing values. **p < 0.01, ***p < 0.001.*

TABLE 3 | Whole cohort, substances implicated and prescribed by gender[†].

Substance implicated in death or prescribed	Females *N* (%)	Males *N* (%)	Kendall tau-b (OR, 95% CI)
Antidepressants implicated	747 (30.4)	1,034 (13.4)	−16.54** (0.36, 0.32–0.40)
Antidepressants prescribed	1,138 (46.3)	2,008 (26.1)	−17.61** (0.41, 0.37–0.45)
Hypnotics/sedatives implicated	569 (23.2)	1,629 (21.2)	−2.07* (0.89, 0.80–0.99)
Hypnotics/sedatives prescribed	781 (31.8)	1,561 (20.3)	−10.93** (0.55, 0.49–0.60)
Methadone implicated	589 (24.0)	1,696 (22.0)	−1.99* (0.90, 0.81–0.10)
Methadone prescribed	275 (11.2)	772 (10.0)	−1.62 (0.88, 0.76–1.02)
Diazepam implicated	379 (15.4)	1,234 (16.0)	0.71 (1.05, 0.92–1.19)
Diazepam prescribed	441 (17.9)	934 (12.1)	−6.76** (0.63, 0.56–0.71)

[†] *Excludes missing values. *p < 0.05, **p < 0.01.*

outlawing in the UK by 2016, designer benzodiazepines such as phenazepam, flubromazepam, diclazepam and etizolam were a growing phenomenon but low in rates of use in Europe (16). Our analysis shows very small numbers of cases where designer benzodiazepines were implicated in NPS deaths, and particularly few if any among female deaths.

Age

Binomial age was based on the median age (38) for the whole cohort. For those 38 years old or under, the proportion of NPS deaths is more than twice than for those over 38 years. The association between NPS and age is statistically significant (Kendall tau-b = 9.34, $p < 0.001$). Odds ratios indicate that the NPS risk of death for those under 39 is 2.6 times more than that for non-NPS deaths (OR 2.59, 95% CI = 2.11–3.16). There was no significant difference in age at death by gender among NPS deaths (one-way ANOVA F=.152, $p < 0.70$) indicating that NPS use is more prevalent among younger people regardless of gender.

Mental Health History

Known mental health history is included in the NPSAD database, derived from coronial reporting of additional information, prescribed medication or narrative analysis. These data are recorded in the database as separate variables for known history of anxiety, depression, paranoia, eating disorder, PTSD, bi-polar disorder, schizophrenia and psychosis. The strongest association with NPS deaths was psychosis (Kendall tau-b = −0.33, $p < 0.02$) with odds ratios indicating that risk of having a reported psychotic issue among NPS cases being 2 times more likely than for non-NPS cases (OR 0.43, 95% CI = 0.26–0.72). For the whole cohort, having a known mental health history was significantly more frequent among female deaths (26.1%) (16.3%) (Kendall tau-b = 0.11, $p < 0.0001$) but no significant gender difference among NPS-only cases (Kendall tau-b = −0.62, $p < 0.14$). The association between younger age and NPS may be one explanatory factor of lower mental health history incidence.

Mental illnesses were otherwise reported in similar proportions for NPS and non-NPS cases, with 4.6 and 3.1% of NPS and non-NPS cases with known anxiety, 10.3% and 11.1% of cases, respectively, with known histories of depression. There were 2.2 and 2.4% of NPS and non-NPS cases recorded as having schizophrenia and 0.9 and 1.0% of cases, respectively, with known histories of bi-polar disorder. Non-NPS cases recorded 0.2% ($n = 18$) with PTSD, with no cases among NPS cases. Low and absent numbers of psychosis, paranoia and eating disorder among female NPS deaths precluded gender comparisons.

NARRATIVE DATA

The dataset provides coroners' verdicts and notes from coroners' narrative verdict which together give circumstantial detail on individual cases and allows a narrative analysis. This was conducted following the analysis of quantitative data providing an analysis focused on quantitative results to better explain these findings. This took the form of a thematic analysis of all female NPS cases that had narrative data ($n = 55$), using, firstly, a priori themes based on factors that gave circumstantial detail of the death, but otherwise open to emergent themes within this evidence. The variables included were age, cause of death and verdict, narrative reporting, implicated substances and prescribed medication.

Guided by the quantitative findings, we firstly examined cases of female NPS deaths where methadone and/or a benzodiazepine were implicated, particularly examining place and circumstances of death, coroner's verdict and indications of other health or social factors associated with the person and their death. Following this, contrasting cases were examined, that is, where methadone or benzodiazepines were not implicated in the death. This provided qualitative comparison to those female deaths that differed from male deaths.

Female NPS Related Deaths Associated With Methadone and/or Benzodiazepines

Examination of the cases associated with methadone and/or diazepam demonstrate a difference in circumstances surrounding the death according to age. Women in their thirties and over tended to have associated physical and mental health histories and prescribed medications that were implicated in their deaths. These also often suggested a story of long-term drug use and social and health problems. For example, one woman aged 30 of no fixed abode died from a pulmonary embolism having taken heroin, ethylphenidate (piperidine) and diazepam. She had been in prison, had a history of chronic heroin use and was prescribed antidepressants, diazepam, and propranolol (beta-blockers). She had injected into her groin when found.

Another woman, aged 48, was found dead at a home run by a housing charity that aims to encourage homeless people into secure housing. The reports states "empty methadone bottles and a used needle were found at the scene". The cause of death was recorded as natural causes due to chronic illness, cirrhosis of the liver and bronchitis. Toxicology reported a mixture of mephedrone with methadone and diazepam, neither of which were prescribed.

Among younger methadone or diazepam-related deaths, there were also some individuals with a history of problem drug use but also recreational use. A 28-year-old student with part time employment was reported to have been found at home; "dead on lounge floor by her estate agent" following "an evening with work colleagues on Saturday". She had used alcohol, GBL, diazepam, oxazepam, temazepam and mephedrone. She was reported to have recently become depressed, drinking heavily and taking drugs. She was only prescribed antidepressants.

Another younger death example was a 24-year-old who lived with friends who was found dead from "accidental toxicity" having "been to a party during the night and taken drugs". Drugs implicated in her death were 4-MEC (a cathinone), piperidine, cannabis, diazepam, mirtazapine and codeine. She was not prescribed any medication according to the report.

Clearly, polydrug use features in all these cases as such cases (with methadone and benzodiazepines) were selected for analysis, however the amount of drugs found implicated or at post mortem indicates, at best, recklessness among chronic drug users and naivety among those that could be described as "recreational" users. While there is a difference between implicated drugs (those causative of death) and those found at post mortem, the presence of multiple interactive and cumulative substances is commonly reported in polydrug deaths (17, 18). There are also no implied differences between these female deaths and male NPS-related deaths. However, our findings indicate a higher proportion of deaths among females where the drugs

were prescribed. As the above example of the woman with no fixed abode and with a prison history, she had been prescribed diazepam and anti-depressants.

A 62-year-old woman who lived on her own and found dead at home had been prescribed olanzepine, duloxepine, diazepam and nitrazepam (all found present at post mortem), and had taken 4-MEC, mephedrone, methylone and ecstasy. She was known to use heroin, diagnosed with depression, ischaemic heart disease and had a stroke. She also had cognitive impairment, possibly due to her stroke. Her cause of death was recorded as cardiac atheroma, however, one may wonder what her state of mind had been on that evening of drug use.

For a 32-year-old, prescribed methadone was implicated in her death from hypoxia following polydrug use. The narrative notes stated:

> "…before her death took a substantial quantity of drugs with her partner including heroin, cocaine and legal highs, and went to bed. Next day found gurgling and unrousable and taken to hospital. Died four days later showing no brain activity."

This woman had a long list of drugs found at post mortem including methadone, gabapentin, fentanyl, MPA (NPS amphetamine-type), midazolam and a piperidine. She was prescribed methadone, pregabalin and quetiapine and had a history of chronic anxiety, bipolar disorder and was a known injecting drug user.

Several cases suggested there was some intent to the overdose but rarely were these cases recorded as suicide. The case of an 18-year-old who lived with her partner, was given an open verdict after cause of death given as poisoning by tramadol and oxycodone. Post mortem also found diazepam and phenazepam, a long-acting designer benzodiazepine, although she was prescribed chlorpromazine, tramadol and diazepam. The narrative included evidence of suicide:

> "No signs of disturbance, with large amount of medications, some empty packets and several loose tablets found within bedside cupboard and on bed. Note found suggesting possible intention to end life. Smoked and drank large amounts of alcohol. Known drug abuser, mainly cannabis."

Another young woman (aged 21) was also given an open verdict after being:

> "Found after seen to take excessive quantities of prescribed medication the evening before death. Sharps bin with syringes and needles and crystal meth use was found at scene. She was found to have used 4-MEC, methadone, diazepam and codeine, being prescribed temazepam, diazepam, co-drydamol and propranolol."

However, an older woman (aged 40) was given a verdict of suicide after taking an overdose of "unspecified medication". She was reported to have a history of multiple overdoses and had access to fluoxetine, pregabalin, MPA (NPS amphetamine-type) diazepam and other conventional benzodiazepines. Only the fluoxetine, mirtazapine and diazepam were reported at post mortem among her prescribed medication, in addition to the MPA, mephedrone and cannabis were also found at post mortem.

One 18-year-old was also given a verdict of suicide without leaving a note but had texted a parent prior to taking an overdose of alcohol, diazepam and mephedrone and then hanging herself. The coroner reported that the drug use had impacted on her mental state (rather than the reverse) and she had been rejected by her boyfriend that evening at a club.

Female NPS Related Deaths Not Associated With Methadone or Benzodiazepines

Examination of these cases revealed a predominance of younger deaths associated with recreational social use and with less polydrug use. Where cases were older, use appeared not to be linked with social activities; where the person was found dead or unwell whilst having used alone.

Typical examples of younger deaths included a 21-year-old:

> "found at her home address lifeless. She had been out drinking with friends and is believed to have taken cocaine, bubble (mephedrone), amphetamine and alcohol."

And similarly, a 20-year-old:

> "Deceased with boyfriend and another friend, bought amphetamine, went to [outdoor leisure setting] where consumed it. Went back by car to her flat, was sick, said was cold and wanted to lie down. Condition worsened early hours. Boyfriend called ambulance [] put on ventilator but suffered liver problems."

The deaths among the teens and those in their twenties have similar details, having been to a party or a friend's house, and taken either a single NPS, or mixed with alcohol. Occasionally there are two NPS substances reported as implicated, or an NPS and, commonly, an amphetamine. However, it is unclear if the NPS and amphetamine had been contained in a single tablet. None of these younger cases had prescribed medication reported or any history of mental illness. They were also often taken to hospital, having been with others at the time.

Older deaths without methadone or benzodiazepines typically had polydrug use as a feature. One 43-year-old died from coronary thrombosis after taking a synthetic cannabinoid (Black Mamba) with no other drug, however, she was prescribed buprenorphine, amitriptyline and codeine which were found at post mortem. There were several cases of older deaths where opioids were implicated, and this also differed markedly from younger deaths. One 42-year-old woman was found dead at home having taken over the counter tramadol and 4-MEC, a methcathinone. This woman had no known history of drug misuse and the verdict given was "non-dependent abuse of drugs". There may have been other evidence available to the coroner to indicate the death was not intentional, however, the lethality of many NPS in circulation prior to 2016 was not generally accepted or understood by users, resulting in a spate of accidental overdoses and deaths.

DISCUSSION

The qualitative differences between methadone/benzodiazepine deaths among female NPS cases suggests different patterns of use by age which should be explored further. Older women also appear to be more likely to have a history of heroin use, regardless of this not showing up in prescribed methadone as a proxy variable for opiate addiction. Methadone is clearly available for illicit use among these cases, but prescribed medications for older women also commonly include anti-depressants, indicating some degree of psychological problems. It is a concern to see how often women whose deaths are associated with polydrug use, have prescribed medications likely to be interactive with substance misuse, for instance codeine-based medications.

Younger women's deaths without methadone or benzodiazepines implicated are less associated with regular or addictive drug use. The NPS deaths here clearly illustrate the lethality of the new substances, perhaps regarded as harmless due to being "legal highs" or associated with party drugs such as ecstasy.

By focusing on female NPS deaths, this analysis has gone some way in reducing the overshadowing effect of opiate deaths that otherwise dominates drug-related deaths research, and given more focus to the different profile that female deaths may present. Additionally, the qualitative examination of circumstances of death afforded by coronial narrative notes starts to give attention to female drug-death profiles.

Greater Gender Homogeneity Among NPS Deaths

The comparison of NPS and non-NPS demographic and outcome associations highlights that NPS users may be more homogenous by gender than deaths where "conventional" illicit drugs are being used, such as opiates and cocaine. This effect may be associated with the younger age group that have typically used NPS, especially when NPS were more available to occasional and recreational users up to their outlawing in the UK by 2016.

As is typical for most drug-using cohorts, during 2007–2016 NPS use, there was reportedly a high prevalence of male users (19) and these substances tended to appeal to younger people (20). Populations found to be at particular risk of NPS mortality from database analysis in the UK were club attendees, men who have sex with men, prisoners and mentally ill inpatients, the homeless and people with eating disorders (21). A Swedish study of NPS use has shown how the gender gap reduced during the period of growth in use of NPS, where, in 2010, 20% of users were female, becoming nearer 30% by 2015, and average age of users had increased from 22 to 29 years (22). Our findings indicate that typical differences found in all drug-related deaths are not significant among deaths where NPS is implicated. What our findings suggest is that comparison between NPS deaths and non-NPS deaths indicate differences in usage and demographics other than gender. People dying following NPS use during this period were more likely to be younger, using fewer polydrug combinations, and more likely to die away from home than opiate users. This pattern may be more indicative of recreational use that has less gender difference than habitual use or addiction. Our examination of death circumstances also suggests NPS overdoses may more often occur in company than opiate overdoses. Therefore, where NPS have been used, these differences are less likely to be accounted by gender than other demographic or behavioral differences than would be typical for opiate deaths.

Age Differences in Female Deaths

Older and more established drug-using women were found by Ataiants et al. (23) to report incidents of overdose when they had experienced stressful events or emotional disturbance, leading to atypical and more hazardous drug use, or change in circumstance such as leaving prison. Our analysis of circumstances surrounding a NPS death indicates a possible age difference among women and a different risk profile in that, older women using NPS may be more likely to be established drug users, familiar with accessing multiple illicit drugs, including methadone and over-the-counter opiates, and using hazardously when the death occurred. They were also typically at home on their own and not be taken to hospital. The population of injecting drug users in the UK is aging, encountering health problems and presenting with complex needs (24) and our evidence from older women supports this in demonstrating cases where social and health problems may be a feature of the person's circumstances. In this, women are likely to be facing similar global issues to men in their drug use histories, however we have not yet analyzed cases of male circumstances to suggest where differences may exist.

Younger NPS fatalities in this period appear to show more naïve usage, less polydrug use, and more likely to be using with friends and recreationally. A high proportion of the NPS deaths were associated with mephedrone, a cathinone shown to be particularly hazardous, but particularly popular as a club drug (25). The deaths where methadone and/or diazepam were implicated were also more typically associated with deaths of older women, who also tended to have social problems such as unstable living arrangement, and health problems. These deaths may reflect the spread of NPS from recreational use to the established drug-using populations and to more deprived locations [i.e., (26)], and to populations where polydrug use and self-medication is a more common behavior (27).

SUMMARY

There are very few studies that specifically examine gender difference in drug use *per se*, without targeting specific populations such as sex workers or focus on treatment outcomes, and there are none to our knowledge that examine female NPS deaths. Our key finding is that NPS deaths show reduced gender differences in demographics or outcomes than among drug-related deaths generally, indicating greater homogeneity between genders during a period of time when NPS were readily available to recreational users. As these users are more likely to be younger than the general population of drug users, age may be a factor in gender difference whereby gender divergence occurs among older drug users with longer drug use histories. Where NPS

were used by older women, these cases typically involved greater polydrug use, including both illicit and over-the-counter drugs.

CONCLUSION AND RECOMMENDATIONS

Further studies that analyse drug deaths and drug use patterns by gender are needed to better understand vulnerability to drug mortality, particularly for different age groups who are typically using different drugs in different circumstances. An examination of patterns of NPS use by age and gender would be informative of risk from these substances specifically, especially where opiates are not a key feature of the cause of death or pattern of use.

LIMITATIONS

This study isolated a core population in a time when NPS were largely unregulated and therefore only studied cases up to 2017, and does not reflect drug use patterns currently. Post mortems at that time also would not always include tests for NPS and some cases where NPS was a feature may have been excluded. We used "drugs implicated", rather than "found at post mortem" as a more accurate indicator of the substances responsible, but this is not to imply the substance is a direct cause of death. For example, deaths included asphyxiation or other physical trauma. Additionally, mephedrone was made illegal in Europe in December 2010 which we found resulted in a brief reduction in NPS deaths in 2011. As the death rate returned to previous levels within 1 year, the dataset may not have been impacted significantly by this contextual change.

The dataset comprises only 76 NPS female cases, making gender comparison analysis underpowered, therefore these findings are indicative and require further analysis with a larger cohort and greater statistical power.

DATA AVAILABILITY STATEMENT

The data analyzed in this study is subject to the following licenses/restrictions: Privately owned data. Requests to access these datasets should be directed to hclaridg@sgul.ac.uk.

AUTHOR CONTRIBUTIONS

LW wrote the manuscript, contributed to analyses, and data collation. XS conducted the analysis and contributed to the reporting of findings. SC collated original data, contributed to the construction of the dataset, and the reporting of findings. CG supervised original data collection and formatting. All authors contributed to the article and approved the submitted version.

REFERENCES

1. UNODC. *World Drug Report 2021*. (2021). Available online at: https://www.unodc.org/unodc/en/data-and-analysis/wdr2021.html (accessed February 25, 2022).
2. Ling S, Mangaoil R, Cleverley K, Sproule B, Puts M. A systematic review of sex differences in treatment outcomes among people with opioid use disorder receiving buprenorphine maintenance versus other treatment conditions. *Drug Alcohol Depend.* (2019) 197:168–82. doi: 10.1016/j.drugalcdep.2019.02.007
3. National Records of Scotland. *Drug-Related Deaths in Scotland, 2020*. Edinburgh: National Records of Scotland (2021).
4. Tweed E, Miller R, Matheson C. Why are drug-related deaths among women increasing in Scotland? A mixed methods analysis of possible explanations. *Drugs: Educ Prevent Pol*. (2022) 29:62–75. doi: 10.1080/09687637.2020.1856786
5. ESPAD Group. *ESPAD Report 2015: Results From the European School Survey Project on Alcohol and Other Drugs*. Luxembourg: Publications Office of the European Union (2016).
6. vanHouten J, Rudd R, Ballesteros M, Mack K. Drug overdose deaths among women aged 30-64 years – United States, 1999-2017. *CDC Morbid Mortal Wkly Rep*. (2019) 68:1–5.
7. Martins SS, Sampson L, Cerd,á M, Galea S. Worldwide prevalence and trends in unintentional drug overdose: a systematic review of the literature. *Am J Public Health.* (2015) 105:e29–49. doi: 10.2105/AJPH.2015.302843
8. H.M. Government. *Psychoactive Substance Act (2016)* H.M. Government. Available online at: http://www.legislation/gov.uk/ukpga/2016/2/contents/enacted (accessed July 22, 2019).
9. Mazure CM, Fiellin DA. Women and opioids: something different is happening here. *Lancet.* (2018) 392:9–11. doi: 10.1016/S0140-6736(18)31203-0
10. Claridge H, Goodair C. *Drug-related deaths in England, Northern Ireland, The Channel Islands and the Isle of Man, January – December*. London: St George's, University of London (2015).
11. Bade R, White J, Ghetia M, Adiraju S, Adhikari S, Bijlsma L, et al. A taste for new psychoactive substances: wastewater analysis study of 10 countries. *Environ Sci Technol Lett.* (2022) 9:57–63. doi: 10.1021/acs.estlett.1c00807
12. Hill RG. Understanding the uk psychoactive substances act. *Br J Clin Pharmacol*. (2020) 86:499–504. doi: 10.1111/bcp.14168
13. Graves Associates. *Synthetic Drugs Trends in 2021*. (2022). Available online at: https://gravesassociates.com/synthetic-drug-trends-in-2021/ (accessed February 24, 2022).
14. Digital Journal. *Synthetic Cannabinoids Market Worldwide Major Trend Outlook 2020 to 2030*. (2022). Available online at: https://digitaljournal.com/pr/synthetic-cannabinoids-market-worldwide-major-trend-outlook-202-to-2030 (accessed February 24, 2022).
15. ACMD. *Reducing Opioid-Related Deaths in the UK*. London: Advisory Council on the Misuse of Drugs (2016).
16. Schifano F, Orsolini L, Papanti GD, Corkery J. Novel psychoactive substances of interest for psychiatry. *World Psychiatry*. (2015) 14:15–26. doi: 10.1002/wps.20174
17. Schifano F, Oyefeso A, Corkery J, Cobain K, Jambert-Gray R, Martinotti G, et al. Death rates from ecstasy (MDMA, MDA) and polydrug use in England and Wales 1996-2002. *Human Psychopharmacol.* (2003) 18:519–24. doi: 10.1002/hup.528
18. van Amsterdam J, Brunt TM, Pierce M, van den Brink W. Hard boiled: alcohol use as a risk factor for MDMA-induced hyperthermia: a systematic review. *Neurotoxicity Res.* (2021) 39:2120–33. doi: 10.1007/s12640-021-00416-z
19. Mdege ND, Meader N, Lloyd C, Parrott S, McCambridge J. *The Novel Psychoactive Substances in the UK Project: Empirical and Conceptual Review Work to Produce Research Recommendations*. London: NIHR Journals Library (2017).
20. Tracy DK, Wood DM, Baumeister D. Novel psychoactive substances: types, mechanisms of action, and effects. *BMJ.* (2017) 356:6848. doi: 10.1136/bmj.i6848
21. Higgins K, O'Neill N, O'Hara L, Jordan J-A, McCann M, O'Neill T, et al. Evidence for public health on novel psychoactive substance use: a mixed-methods study. *Public Health Res*. (2019) 7:1–8. doi: 10.3310/phr07140
22. Helander A, Backberg M, andBeck O. Drug trends and harm related to new psychoactive substances (NPS) in Sweden from 2010 to 2016: experiences from the STRIDA project. *PLoS ONE.* (2020) 15:e0232038. doi: 10.1371/journal.pone.0232038

23. Ataiants J, Roth A, Mazzella S, Lankenau S. Circumstances of overdose among street-involved, opioid-injecting women: drug, set, and setting. *Int J Drug Policy*. (2020) 78:102691. doi: 10.1016/j.drugpo.2020.102691
24. ACMD. *Ageing Cohort of Drug Users*. London: Advisory Council on the Misuse of Drugs (2019).
25. Adamowicz P, Tokarczyk B, Stanaszek R, Slopianka M. Fatal mephedrone intoxication—a case report. *J Anal Toxicol.* (2013) 37:37–42. doi: 10.1093/jat/bks085
26. Deen AA, Claridge H, Treble RD, Hamnett HJ, Copeland CS. Deaths from novel psychoactive substances in England, Wales and Northern Ireland: Evaluating the impact of the UK psychoactive substances act 2016. *J Psychopharmacol.* (2016) 35:1315–23. doi: 10.1177/0269881121102 6
27. Novak S, Håkansson A, Martinez-Raga J, Reimer J, Krotki K, Varughese S. Nonmedical use of prescription drugs in the European Union. *BMC Psychiatry*. (2016) 16:274. doi: 10.1186/s12888-016-0909-3

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 29 April 2022
doi: 10.3389/fpsyt.2022.898570

The Perceptions of Women About Their High Experience of Using Crack Cocaine

*Saulo G. Tractenberg[1], Jaluza A. Schneider[1], Bernardo P. de Mattos[1], Carla H. M. Bicca[1], Bruno Kluwe-Schiavon[2], Thiago G. de Castro[3], Luísa F. Habigzang[1] and Rodrigo Grassi-Oliveira[1,4]**

[1] Graduate Program in Psychology, School of Health and Life Science, Pontifical Catholic University of Rio Grande Do Sul (PUCRS), Porto Alegre, Brazil, [2] Decision in Context, Research Center for Psychological Science, University of Lisbon (ULisbon), Lisbon, Portugal, [3] Department of Psychology, Federal University of Rio Grande Do Sul (UFRGS), Porto Alegre, Brazil, [4] Translational Neuropsychiatry Unit, Department of Clinical Medicine, Aarhus University, Aarhus, Denmark

Introduction: The aim of this study was to explore the perceptions of women about their experience in using crack cocaine, discussing their motivations for using it and the repercussions in their lives.

Objective: To investigate these experiences, a qualitative exploratory study was conducted, using the inductive thematic analyses of the content.

Methods: Eight female crack cocaine users took part in this study. They were assessed by a semi-structured interview, addressing the crack cocaine use experience. Four main themes emerged in the interviews: (1) crack cocaine "high" experience; (2) symptoms related to crack cocaine use; (3) circumstances of crack cocaine use; and (4) crack cocaine use consequences.

Results: The main perceptions reported by the users were related to a feeling of being disconnected to the world preceded by a pleasant experience, especially during the first moments of use. They revealed that the drug fulfills a key role of coping strategy to handle with negative thoughts, emotions or life experiences. An important influence of social issues was reported in relation to the onset of crack cocaine use. Negative consequences and significant impact on their lives appeared in their reports, regarding the loss of family ties, involvement with prostitution, traumatic experiences and violence.

Conclusion: Taking together all women's perceptions suggests that beyond the positive immediate rewarding effect, the maintenance of use might be related to the dissociative experience and self-medication role, acting as negative reward by relieving of negative life experiences that, in turn, are both cause and consequence of the drug use.

Keywords: substance use, crack cocaine, sex differences, qualitative study, thematic analyses

OPEN ACCESS

Edited by:
Guilherme Messas, Santa Casa of São Paulo, Brazil

Reviewed by:
Alessandra Diehl, ABEAD, Brazil
Silvia Brasiliano, Faculdade de Medicina da USP, Brazil

***Correspondence:**
Rodrigo Grassi-Oliveira
rogo@clin.au.uk

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: *17 March 2022*
Accepted: *06 April 2022*
Published: *29 April 2022*

Citation:
Tractenberg SG, Schneider JA, Mattos BP, Bicca CHM, Kluwe-Schiavon B, de Castro TG, Habigzang LF and Grassi-Oliveira R (2022) The Perceptions of Women About Their High Experience of Using Crack Cocaine. Front. Psychiatry 13:898570. doi: 10.3389/fpsyt.2022.898570

INTRODUCTION

Cocaine Use Disorder (CUD) represents a serious public health problem with about 20 million people using the drug annually worldwide. Cocaine consumption has been increasing over the last decades. Recent reports from Word Drug Report 2021 estimated a potential increase of 11% in global drug use for 2030, with pronounced impact in low- and middle income- countries, which

could be, in part, explained by the availability of the drug in derived forms that provide greater returns to the drug market (1). In South American countries, for example, crack cocaine "rocks"– a cocaine base obtained from hydrochloride conversion for smoking usually through a pipe (2)—has been widely consumed, such as in Brazil (3). Despite there is a few studies of epidemiological data on specific increase of crack consumption, Brazilian drugs reports have been estimated that 1.3% of drug users consume crack cocaine form annually (4). Crack cocaine is produced with the same chemical base from cocaine, but with less amount of water, which results in a tropane alkaloid composition. Despite both forms having distinct ways of administration, time of action and half-life duration, they have similar active components, being capable to produce psychostimulant effects (e.g., euphoria, energy gain, increased psychomotor activity and alertness, reduced appetite and sleep needs) in the user (5). At high doses or in a chronic and prolonged use form, otherwise, both cocaine and crack cocaine could trigger negative emotions (e.g., mood and anxiety symptoms), paranoia, impulsive and aggressive behaviors, and physiological reactions (6). Clinical evaluation of crack cocaine users (CCU) has been suggested the presence of more pronounced symptoms and negative psychosocial effects when compared to those who consume the drug in powder form (7, 8) or any other drugs, increasing the demand for CUD treatments.

The CCU profile is not different from other drugs with prevalence rates being higher among men, however, in the last few years, drug reports and few studies have been suggested an increase of crack cocaine consumption among women (1, 9, 10). This new perspective leads to an effort from the Brazilian scientific community to investigate potential sex specificities in a range of target-points, which is in line with an international tendency to explore and integrate on addiction studies sex and gender differences as a main issue for investigation (11–13). Several factors are being highlighted as potential differences between sexes in relation to drug use and addiction, including the psychoactive effects of each drug, the patterns and motivations of use, the dependence and withdrawal symptoms and, finally, the treatment challenges and strategies (14–16).

Despite still incipient, some findings have been suggested that women have more severe pattern of drug use in association with higher rates of psychiatric comorbidities and psychosocial problems (e.g., familiar, work-related, legal, and criminal problems) (17). It might contribute to social stigmatization among women users, influencing the appearance of high-risk behavioral profile in this population (9, 14, 15, 18–20). A review of Brazilian crack cocaine studies, for example, reinforced such idea indicating that drug consumption among women increase their exposure to vulnerability regarding specific sex issues, including gestation health problems, intrapersonal and domestic violence, prostitution and moral judgment (21). The motivations that lead women to seek the drug is also suggested to be different when compared to men. Evidence from studies with CCU women revealed that there is a lot of emotional drive involved in motivation for drug seeking-behavior, especially related to the attenuation negative emotions. In contrast, men are generally motivated to drug consumption for more positive reinforcement reasons, such as the pleasure experience and reward-related effects (22, 23).

In this sense, it seems that different trajectories lead to crack cocaine use and progression to addiction among women and men. This could be influence by a range of factors that produce distinct experiences associated with the drug (11), opening an interesting field for both quantitative and qualitative investigations. Qualitative studies allow us to explore and deeply comprehend the personal experiences, motivations, and thoughts of the users about their own addictive condition. Investigating these meanings might represent an important contribution for individual and community interventions and, at final step, public health policies, since highlight subjective personal experiences (e.g., motivations and repercussions in life) and needs that could be shared by addicted individuals. Also, exploring women's perceptions contribute to improve the knowledge of specific sex factors underlying crack cocaine addiction that are still poorly described and understood. For this reason, the current study aimed to explore the perceptions of women about their experience in using crack cocaine, addressing their own motivations for use and the repercussions in their lives. For this purpose, a qualitative exploratory design was conducted using the inductive thematic analyses of the content.

METHODS

Participants

Eight female crack cocaine users, who were admitted into a detoxification unit for alcohol and other drugs in the city of Porto Alegre, Rio Grande do Sul, participated in this study. The inclusion criteria were (a) voluntary hospitalization; (b) crack cocaine as the main drug of use, and; (c) diagnosis of Crack Cocaine Use Disorder (according to the DSM-5 criteria) and prior assessed by SCID-V interview. The exclusion criteria were as follows: the presence of psychotic symptoms; psychomotor agitation and/or disorientation; incapability of understanding and sustaining a conversation; and presence of chronic diseases (e.g., HIV or metabolic diseases). These exclusion criteria were not limited to this study specifically, being applied by our larger cohort from which this qualitative study derives. All participants remained during the 21-day period of detoxification with no access to alcohol, tobacco, or any other drug, as prescribed by the mental health unit.

Participants had a mean age of 29.2 years (SD = ±8.3). On average, the number of years of education was 8.2 years (SD = ±2.5) and most of them ($n = 6$) were unemployed. Only one participant was married and the average number of children among them was 1.1 (SD = ±1.31). Participants reported a total number of 5.3 (SD = ±2.7) previous hospitalizations for treating substance related disorders. Most of them were polysubstance users, using tobacco ($n = 7$), alcohol ($n = 6$), marijuana ($n = 5$), and cocaine ($n = 3$) in addition to crack cocaine. The mean age of crack cocaine onset use was 22.1 years (SD = ±8.5).

Ethical and Data Collection Procedures

All participants were invited and provided informed consent to participate in the study. The Informed Consent Form was

TABLE 1 | Guiding questions of the interview.

Leading questions
"How would you describe being high on crack?"
"How was the experience of using it?/How did you feel when you used it?"
Additional questions
"Is there any difference between your current use experience and the first time you used it?"
"How you describe the differences between crack and other drugs (e.g., cocaine, alcohol, marijuana) usage?"
"How would you describe your experience after the crack high ends?"
"For how long do you feel the effects of the crack's high?"
"Could you tell us in which moments do you usually use crack"

presented, and the aims of the study were explained to the participants before the interviews took place. The interviews were individually performed by trained psychologists in a private room inside the unit. All interviews were conducted in a single session and lasted ∼1 h. This study was approved by the Ethics and Research Committee of the institutions involved.

Data were collected using a semi-structured interview, which aimed to explore and comprehend the crack cocaine consumption experiences of these women. Interviews started with two leading questions, "*How would you describe being high on crack?*" and "*How was the experience of using it? /How did you feel when you used it*?" Based on the narrative described by the participants, additional questions could be formulated. Consequently, the following topics were also addressed: physiological, cognitive and emotional effects caused by the drug use; comparison of the effects of crack cocaine use with those of other drugs consumed; and comparison of current and initial effects of crack cocaine use. All interviews were recorded in audio format and transcribed for later analysis. The leading and additional questions are presented in **Table 1**.

Data Analysis Procedures

Inductive thematic analyses were conducted based on the proposal by Braun and Clarke (24) in six steps. In Step 1 (data collection and recording), the recorded interviews were transcribed by two research assistants. In Step 2, a free reading of the transcribed text was performed, and, in the sequence, preliminary codes were created from the relevant data according to the study objectives. In Step 3, the coded data was sorted out by clustering extracts according to potential themes. In Step 4, the themes were reviewed, with the content of the data and consistency within emergent themes and subthemes being observed. At this stage, two independent judges, with expertise on substance use disorders, reviewed the themes and subthemes, considering the data and the content of excerpts from the analyzed interviews. Both analyses were compared to verify possible discrepancies in relation to themes and subthemes, and these disagreements were discussed until a consensus was reached. In Step 5, themes and subthemes were named and finalized, with examples of consistent and representative extracts. Finally, in Step 6, the results were formally written and interpreted considering the literature background (24, 25).

RESULTS

Based on the thematic analysis, four main themes emerged: (1) Crack cocaine high experience; (2) Symptoms of substance use disorder; (3) Circumstances of crack cocaine use; and (4) Crack cocaine use consequences. In each theme, specific subthemes were identified as shown in **Figure 1**.

The theme "Crack cocaine high experience" was related to the leading question of the interviews. This theme was divided into two subthemes: (1.1) "Description of the high," which demonstrated a pleasant experience, especially during the first moments of crack cocaine use, represented by words such as: '*ecstasy*', '*euphoria*', '*horny*', '*accelerate*', '*well-being*', '*relax*', '*relief*' '*soothe*'; and (1.2) "Physical-Sensorial Experiences" including aspects described by the users about their experiences while under the effect of the substance, such as sensations of '*peace*', '*thinking of nothing*', '*sped up*', paranoia, hallucinations and physical symptoms such as heart beating fast and panting.

The second theme, "Symptoms of substance use disorder," was divided into four subthemes: (2.1) "Craving," which they described as an uncontrollable desire to use crack cocaine, with physical sensations ('*shaking*' and '*sweat*'), constant thoughts about the need for intoxication again and about plans for it; (2.2) "Compulsion" revealed the binge use of crack cocaine, such as "*When I start, I don't want to stop anymore*," "*I don't know how to use just a little bit of drug*" or "*You spend the whole day busy* (in order not to use it)"; (2.3) "Tolerance" indicating the attenuation of crack cocaine effects; and (2.4) "Abstinence" symptoms, revealing the symptoms that users felt due to the absence of the drug.

Three subthemes emerged from the third theme "Circumstance of crack cocaine use," which addresses the context and forms of consumption: (3.1) "Motivation to use," was related to positive expectations toward the crack cocaine use effects, especially on the attenuation of negative feelings; (3.2) "Polysubstance use," revealed the consumption of other drugs during the lifespan of the participant; (3.3) "Ways to keep using the drug," identified how users maintain their consumption, such as selling personal belongings and, most notably, attempting sex work and prostitution in exchange for or to obtain money to purchase the substance, and (3.4) "Socialization," which revealed the social experiences during the participants' crack cocaine consumption.

The fourth theme "Crack cocaine use consequences" was divided into six subthemes: (4.1) "Progression of use," addressing the main aspects for the onset and progression to crack cocaine dependence; (4.2) "Perceived damages," describing the negative consequences of the consumption of crack cocaine identified by the users themselves; (4.3) "Post use sensations," considering the negative aspects when ceasing the intoxication; (4.4) "Risk behaviors," which identified risk situations where participants engaged on to obtain or to use crack cocaine, and, finally, (4.5) "Motivation to seek treatment" and (4.6) "Treatment history," revealing the participants' description of their relapses and history of treatments attempts (**Table 2**).

TABLE 2 | Themes, subthemes, and representative thematic units.

Themes	Subthemes	Representative thematic unit
1. Crack high experience	1.1 High description	[...]To get out from world, to get out from earth, to get out from me. To not have to think, sons or anything else, just... just get out, you know?
	1.2 Physical-Sensorial Experiences	[…]I feel excited, I get up, I start to walking around and daydreaming. I daydream about people... that them are staring at me, looking at me different... I want to hit them, react, hit this way (move both hands as is hitting something)... so I already want to move forward, I want to move forward to fight, I want to hit, you know?
2. Substance use disorder symptoms	2.1 Craving	[...]I know it's stronger than me, my hands are sweating, I'm shaking, I'm going to step on the house, I'm going shake again I'm sweating and I put it into my head that I want it, I want it. I can't stop thinking about it. I'm craving for it and it already gives me a stomachache, headache, body pain...
	2.2 Compulsion	[...]Actually I'm pretty compulsive, so, regarding the drug. The more I use, more I want to use, understood? [...] There is no ending, differently from those people who stop. When I start, I do not want to stop.
	2.3 Tolerance	[...]Was... And I was already... the drug didn't have more effect because I was using for many days, almost two weeks. Smoking repeatedly and smoking. So I can't feel more the effects.
	2.4 Withdrawal	[...]Now, now, I'm starting to feel better it's complete, because I had nightmares all night long. All nights, so I dream that I'm smoking. It's awful.
3. Circumstance of crack use	3.1 Motivation to use	[...]Desire... desire. Firstly, the addiction. The addiction, the desire of use again and again and again... Feel the high. To be on my trip again. To not feel any guilty.
	3.2 Polysubstance use	[...]Oh, I don't even know how to explain it to you, but it's... more powerful than cocaine. Cocaine you aspirate a little and you feel well... your conversation goes and goes and goes. The crack already punches like that, you know? [...] I'm not paranoid about picking, but I get more aggressive when I'm drinking [...]
	3.3 Ways to keep using the drug	[...]I wanted to smoke. So I went to my friend's garage, he's a mechanic and asked for twenty reais. He wants to have sex with me, so I had sex with him, right? I got my twenty reais and went away. I don't know... okay, I got him, I got twenty reais and went to buy drugs. I got ten and I smoked it. I got more ten and also smoked it. After finished, I was like this, right? No money. Then I had sex with... I kind of... drug dealer to get more crack stones, so he gave me more.
	3.4 Socialization	[...] There are some that enjoy smoking alone, some times I end up smoking alone, but I do one or two times and I have to go near my friends. Just one or two alone, like a selfish.
4. Crack use consequences	4.1 Progression of use	[...]Since that day, the first time that I use, I started to smoke every weekend, like a couple of crack stones. After, there is a time that I started to disappear, all night long and I lost completely the control of that... Until I ended up in the hospital.
	4. 2 Perceived damage	[...] I came here very sad, I tried to kill myself. [...] Crack no, crack is a prison. You smoke one and get locked.
	4.3 Post use sensations	[...]When you stop, you're ashamed of the things you did. You look at yourself in the mirror, your face are all dirty, gray... it is a great humiliation. [...]All the time. Then I start to speak, my breath returns to normal, I start to look to the people normally and that's how it is.
	4.4 Risk behaviors	[...]I stabbed myself, right? In those five minutes that I'm out of me because the crack high... I stabbed myself in the foot and took six stitches. In addition to stab me, I still put my finger inside my wound and started to move, like this, and did not feel anything, nothing, no pain... [...]I... I'm with a person that I like, but I do not feel love. So I have sex to him because I can get crack. So I have a relationship with him because of it. Understood? Because he helps me, because he gives me crack. You know? But he helps me at home too. Because I'm working too in the streets to get crack, I have sex with others to maintain my addiction, got it?
	4.5 Motivation to seek treatment	[…]I lost my father, it's been 11 months since he died and he was an alcohol addict. [...]And he said to me, 'daughter, look, you're between life and death, you're going to stop... I hope you stop before. And what happened to me, I'm going to stop, I stopped. This is why I'm here. "[...]I've seen five people being killed and this motivate me to stop the drug use. Then I started to want to be hospitalized. Because there, outside, the death passed nearby and not take me.
	4.6 History of treatments	[...]After that I started to go to drug-treatments, being hospitalized... I have consecutive hospitalizations and some short time relapses... then hospitalized again, relapsed, hospitalized again and I stayed until I'm able.

DISCUSSION

The present study aimed to explore the perceptions of women regarding crack cocaine use and their thoughts about the representative role of it in their lives, including the motivations to use the drug and the consequences of it. The user's speech suggested that one of the main perceptions related to the crack cocaine use is a pleasant experience, especially during the first moments of use, in addition to a feeling of being disconnect to the world. Also, crack cocaine users revealed that the drug

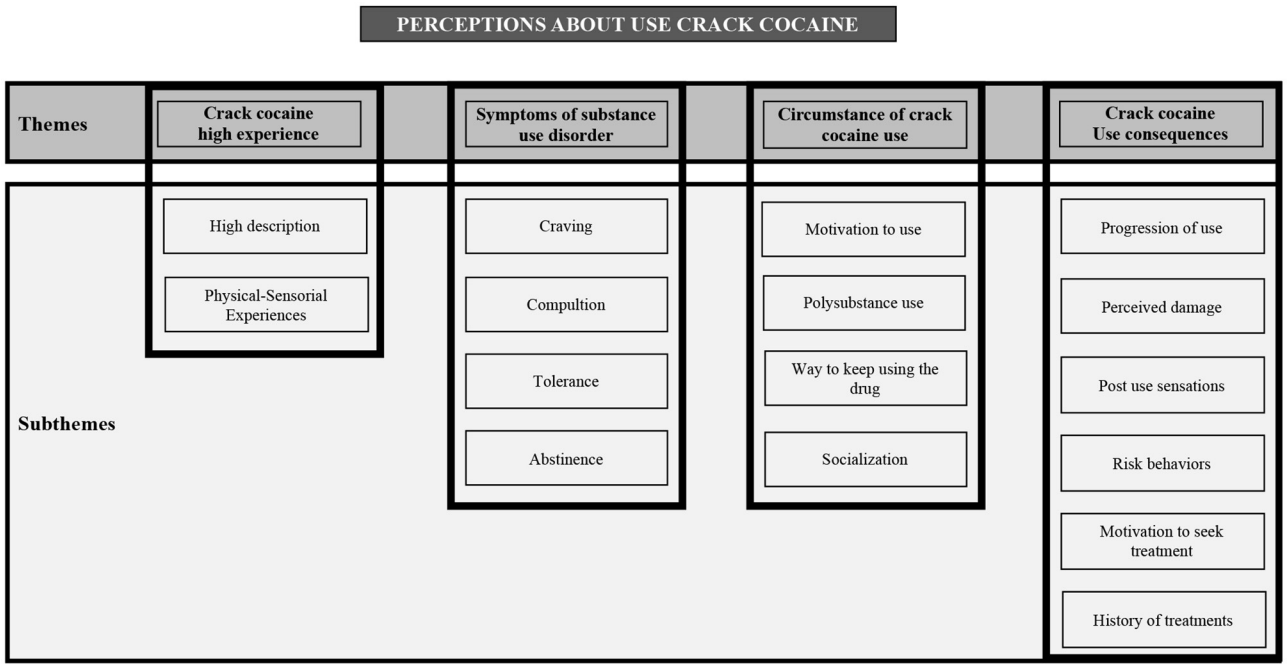


FIGURE 1 | Thematic analysis—themes and subthemes.

fulfills a key role as a coping strategy to handle with negative thoughts, emotions and/or life experiences. Crack cocaine was considered a drug with distinct characteristics compared to other drugs, including cocaine itself. The main differences pointed by the users were related to intensity and rapid effects. Furthermore, users suggested that the onset of their use was influenced by interpersonal relationships, highlighting the progression of use as fast and uncontrolled. The risk exposure associated with both use and continued use are recognized, as exemplified by putting themselves on high-risk situations, joining sex work and family detachment.

The description of the experience of crack cocaine intoxication was characterized by intense pleasure and euphoria: "*I don't know, I think it is this, I get really agitated… and euphoric*," sometimes followed by an immediate suffering relief: "*no pain, no pain whatsoever, nothing at all. After the effect ceases, everything – the pain comes back, it comes…*" The drug relief effect is consistent with reports indicating that CCU women commonly deal with their negative emotional states when using drugs: "*And then I fall to the ground, and then I come… feel, I start to feel pain, start to feel everything.*" (User 3). Using crack cocaine was perceived as the only alternative to deal with problems, as exemplified in the following statements by one of the participants on the effects of crack cocaine: "*if I feel some pain, if I have something, it's all gone at once*." And "*get out of the world, get out from earth, get out from myself. Not think about anything, not think about son, nor on problem, nor on mom, nothing at all, so, it's just… just get out of myself, you know?*" (User 4 and 5). According to Cafure (26), the fast-acting mechanisms of the drug in addition to its reinforcement properties, including the pleasure experience (positive reinforcement) and/or the attenuation of emotional suffering (negative reinforcement), which could be understood as a maladaptive coping strategy allowing the reinforcement of the drug seeking behavior (27).

It is distinct to what is referred by men users, who usually tend to use the substance seeking pleasure (22, 23). There are discussions pointing out that, especially among women, the drug use could be characterized as a self-medication role to handle with negative feelings and life experiences, such as early childhood or posterior experiences. Self-medication hypothesis suggests that individuals attempt to mitigate and cope with negative symptoms induced by different psychological conditions, including Depression, Posttraumatic Stress Disorder (PTSD), and drug addiction (28–32). In this sense, the effects of crack cocaine were generally described as having a role related to the relief of different sensations considered unpleasant, such as tiredness, guilt, and day-to-day concerns. The drug was depicted as a "*shelter from their problems.*" The participants' speech related to "*thinking about nothing*" suggests the necessity for escape from problems and concerns and the lack of emotional adaptive coping skills. Some studies already evaluated that women are more likely to sustain beliefs related to not being able to deal with intense emotions, using drugs as an emotional regulation alternative (33–36).

Crack cocaine fits well in this regard since the users reported an intense and fast drug effect. However, these effects tend to present a short-time duration, followed by a strong desire to administer and experiencing it again, corroborating the indicatives of high levels of craving and withdrawal symptoms, as well as a drug seeking and compulsive behavior (37, 38). It

reflects what one user described as a compulsive use "*I used it fifteen days straight. Not sleeping, no food, no nothing. Fifteen days. I received from my workload, received my salary and ended up smoking. Stayed at home, locked in my house, smoking, smoking, smoking, smoking*" (User 1). This pattern of crack use usually is observed in "cracklands" along different Brazilian cities, where users meet in larger open spaces to use crack reflecting vulnerable conditions and extreme poverty (39). Such compulsive behavior and way of life led to several issues, especially those related to their relatives. Despite having awareness about it and the adverse life consequences, the CCU women reported that they feel unable to control their addictive behavior, as referred in the participants' speech: "*When I start, I don't want to stop anymore*", "*I don't know how to use just a little bit of drug*," or "*you spend the whole day busy* (using it)." A study from Freitas et al. (40) with CCU men, for example, revealed that they also have their own perception regarding the negative consequences and that this perception was not capable to influence the cessation of drug use.

The perceived negative impact of crack cocaine use mentioned before, however, was not referred in the same degree in relation to risk-behavior perception. Risk perception seem to be reduced and/or distorted among drug users (41). Reports about hurting oneself such as: "*I already hurt myself with a knife, fooling around with a knife. I stabbed my foot, I had six stitches*" (User 2); "*I worked as a hooker, I had my clients. So, I would do what they asked. I did not care; I didn't feel pain*" (User 6); were examples of exposure to high-risk situations that seems to be dissociated from potential negative consequences. In both described speeches, the previous awareness of negative consequences is absent and corroborating to risk-behavior exposure.

The craving symptoms experience described by some participants indicated that such symptoms are enhanced following the pain relief experience, inducing the search and desire to experience the initial sensation of the crack cocaine high again. In CCU men, for example, it was reported that expectations about changes in craving sensations and negative feelings after crack cocaine high cessation are important for the maintenance of the crack cocaine consumption behavior (40). CCU women findings suggested that crack cocaine use could be viewed as a behavior that is chosen for its reinforcing consequences. Thus, the attenuation of undesired craving symptoms was considered an additional reinforcement factor (34, 42). Specifically, our study participants demonstrated in their speeches that they also had to deal with other unpleasant symptoms, including insomnia and nightmares, suggesting that in addition to craving, withdrawal symptoms could also influence their addictive behavior pattern.

Polysubstance use history was another characteristic reported in our sample. There are reports suggesting high prevalence of polysubstance use, such as alcohol and cannabis, among CCU, inducing higher problems with psychiatric symptoms and impulse control (43, 44). Indeed, both substances were the most referred beyond crack cocaine and were perceived as able to induce additional experiences in crack cocaine high. Alcohol use, for example, despite reported as able to reduce the craving symptom experience, was followed by an increase in aggressiveness and violent behaviors. Cannabis use, which was described as capable to induce relaxation and sleepiness: "*The weed has it. Completely. You get that weed, you smoke that little weed, it gives you the couchlock, it gives you a feeling of pleasure, of relief. Sleepiness and dry mouth. And… gets you hungry, right? Weed is this. Weed is a sedative.*" (User 4), in combination with crack cocaine was suggested to induce sociability during the usage. The history of drug use and the differences in high experience between smoked crack cocaine and snorted cocaine also should be pointed: "*The cocaine, happened. The cocaine the effect is normal, it's… you don't get out of that thing there, you don't stay on that anguish "I want more, I want more." I was satisfied with twenty bucks*" (User 7), referring that the last form tends to be "*weaker*" than crack cocaine, leading to "*less addiction*," which makes sense due to the quicker absorption of the drug and a more intense reinforcing effect. Cocaine was also mentioned as related to increases in socialization during the use, which is reported rarely when crack cocaine was used alone.

The participants along the interviews frequently pointed out the influence of the social context as one of the main reasons for starting their drug use. Relatives and friends who were cited as the most influences. Some findings already discussed that crack cocaine use among women were commonly influenced by close people (15, 21, 45). Curiosity and attempt to enhance sociability, for example, were reported by women as one of the main motivations to the onset of use. Most of the users revealed similar history of crack cocaine use progression, in which use was sporadic at the beginning and quickly became daily and compulsive. The search for socialization was also suggested to be related to the maintenance of use. Estimates have suggested about 80% of Brazilian CCU choose to use the drug in openly in public spaces of social interaction (4, 39, 46). Interestingly, the users reported that they avoid using crack completely alone, which is different than what has been observed among CCU males (47). According to participants, even without active communication, the presence of other users has a protective effect during the consumption. Higher social vulnerability experienced (e.g., traumatic and violence experiences) by CCU women when compared to men could influence the search for protection during consumption (48). Moraes et al. (21) emphasizes that the sociability of women during the use of crack cocaine should be explored by future studies and can be considered as an important sex difference in crack cocaine use.

The vulnerable condition of CCU women has been discussed by some studies, indicating that this population has a high-risk profile for traumatic exposure, as well as to sexually transmitted infections (STIs), since they often engage in sex trade in order to obtain money to maintain drug consumption (49–52). CCU women that often exchange sex for money or drugs were suggested to be three times more likely to develop syphilis as well as to be victim of violence when compared to men (14). Crack cocaine use was also identified as a risk factor for trauma related disorders. Data from a previous study found that CCU women have high rates of exposure to traumatic events, with more than 80% reported having

experienced or witnessed an actual or risk situation of sexual or severe aggression (53), which corroborates the evidence suggesting that women who are CCU were more likely to report lower education, childhood maltreatment and unstable housing situation (53). Furthermore, the lack of physical care, such as not eating, not sleeping and not performing adequate hygiene was perceived as additional damage of the crack cocaine use, increasing the susceptibility for health and mental health concerns (54).

Regarding the aspects related to treatment seeking, family inquiry appeared as one of the main reasons for CCU women asking for help. Some participants, in their speech, demonstrated that the possibility of taking care of their children again or the reunification is the major motivation for engaging in substance use disorder treatment (15, 55). On the other hand, lack of family support, absence of children or the possibility of losing her own child have been identified as potential risk factors for relapse and a barrier to treatment enroll (56). Among the cited reasons by women with children reported in a previous study (57), the fearful of losing custody of their child was associated with less likely to enter in treatment programs. Women with CCU are known as a vulnerable group with complex unmet needs, for this reason, the risk of losing child care could represent additional challenge for substance use treatment. Interestingly, almost of half of women (who are mothers) receiving treatment already had experienced the least of care at least one time in their lives (58). In this perspective, the participants highlighted that one of most perceived negative consequence of crack cocaine use was the loss of family, especially for those who are mothers. In the review study of Doab (58), it was discussed that keeping the mother with their children could improve rates of treatment adherence, since women spend more time enrolled in drug treatments. Thus, it can be suggested that family and social detachment might aggravate the vulnerability condition of these women and consequently increase the risk to crack cocaine use, relapse during detoxification processes or dropout health care treatment programs for substance use (59, 60).

CONCLUSION

This study revealed that the crack cocaine high is a very personal experience, being associated with a pleasant feeling, at the intoxication moment. The progression to continued use and, consequently, addiction might represent a coping strategy to attenuate trauma and negative emotions experienced throughout life. CCU onset was commonly influenced by relatives and/or close social relationships (61) and that socialization is part of their addictive behavior. In comparison to the powder form, crack cocaine was perceived as stronger and associated with more negative outcomes, including family and social support abandonment, sex trade involvement and exposure to violence traumatic experiences. Despite our findings contributing to better understand the subjective experience of CCU, it should be interpreted with some limitation and not generalized to larger groups of users. Our study was based on the analysis of the perception from a small sample of CCU women, valuing their own meaning and interpretation of the experience. The sample itself was unique and, for this reason, explore such subjectivity could open questions and potential targets for more directed intervention (e.g., focusing on emotional regulation, traumatic experience and adaptative coping, understanding differences in motivation and drug use trajectory). Additionally, social and/or familial support should be addressed considering its role for prevent relapse and rehospitalization.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Ethics and Research Committee of PUCRS. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

ST contributed with conceptualization, methodology, investigation, analysis, and writing of original draft and reviewed draft. JS contributed with methodology, investigation, and writing of original draft. BM contributed with analysis and writing of reviewed draft. CB contributed with investigation and analysis. BK-S contributed with conceptualization, methodology, investigation, analysis, and writing reviewed draft. TC contributed with conceptualization, supervision of methodology, and analysis. LH contributed with conceptualization, supervision, and writing reviewed draft and RGO contributed with conceptualization, supervision and project administration, and reviewing all writing steps. All authors read, and approved the submitted version.

FUNDING

This study was supported by NIDA and the Fogarty Foundation (R01DA044859) and Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) (Grant No. 466802/2014-5). The funding sources had no involvement in study design; in the collection, analysis, and interpretation of data; in the writing of the manuscript; and in the decision to submit the manuscript for publication.

ACKNOWLEDGMENTS

The authors would like to thank all staffs and members of the Sistema de Saúde Mãe de Deus for the support during the data collection.

REFERENCES

1. UNODC. *World Drug Report*. Vienna: UNODC (2021).
2. Da Silva KM. Assessing cocaine use patterns in the Brazilian capital by wastewater-based epidemiology. *Int J Environ Anal Chem.* (2018) 98:1370–87. doi: 10.1080/03067319.2018.1554743
3. Hynes M, Clarke P, Araneda-Ferrer J-C, Ahumada G. *Report on Drug Use in the Americas 2019* (2019).
4. Abdalla RR, Madruga CS, Ribeiro M, Pinsky I, Caetano R, Laranjeira R. Prevalence of cocaine use in Brazil: data from the II Brazilian National Alcohol and Drugs Survey (BNADS). *Addict Behav.* (2014) 39:297–301. doi: 10.1016/j.addbeh.2013.10.019
5. Spronk DB, van Wel JH, Ramaekers JG, Verkes RJ. Characterizing the cognitive effects of cocaine: a comprehensive review. *Neurosci Biobehav Rev.* (2013) 37:1838–59. doi: 10.1016/j.neubiorev.2013.07.003
6. Goldstein RA, DesLauriers C, Burda A, Johnson-Arbor K. Cocaine: history, social implications, and toxicity: a review. *Semin Diagn Pathol.* (2009) 26:10–7. doi: 10.1053/j.semdp.2008.12.001
7. Kiluk BD, Babuscio TA, Nich C, Carroll KM. Smokers versus snorters: do treatment outcomes differ according to route of cocaine administration? *Exp Clin Psychopharmacol.* (2013) 21:490–8. doi: 10.1037/a0034173
8. Martin G, Macdonald S, Pakula B, Roth EA. A comparison of motivations for use among users of crack cocaine and cocaine powder in a sample of simultaneous cocaine and alcohol users. *Addict Behav.* (2014) 39:699–702. doi: 10.1016/j.addbeh.2013.10.029
9. INCB. *International Narcotics Control Board (Incb) for 2017*. United Nations (2017).
10. Madruga CS. Levantamento Do Perfil De Usuários De Drogas Na Região Da Cracolândia. *Coordenadoria de Políticas sobre Drogas (COED)* (2017).
11. Becker JB, McClellan ML, Reed BG. Sex differences, gender and addiction. *J Neurosci Res.* (2017) 95:136–47. doi: 10.1002/jnr.23963
12. Fattore L, Melis M. Editorial: exploring gender and sex differences in behavioral dyscontrol: from drug addiction to impulse control disorders. *Front Psychiatry.* (2016) 7:19. doi: 10.3389/fpsyt.2016.00019
13. Grella CE. From generic to gender-responsive treatment: changes in social policies, treatment services, and outcomes of women in substance abuse treatment. *J Psychoactive Drugs.* (2008) 5:327–43. doi: 10.1080/02791072.2008.10400661
14. Guimarães RA, de Oliveira Landgraf de Castro V, do Valle Leone de Oliveira SM, Stabile AC, Motta-Castro ARC, Dos Santos Carneiro MA, et al. Gender differences in patterns of drug use and sexual risky behaviour among crack cocaine users in Central Brazil. *BMC Psychiatry.* (2017) 17:412. doi: 10.1186/s12888-017-1569-7
15. Limberger J, Schneider JA, Andretta I. Especificidades do tratamento de mulheres usuárias de crack: interface com direitos humanos. *Psicol Pesq.* (2015) 9:13–147. doi: 10.5327/Z1982-1247201500020004
16. Maciel LZ, Tractenberg SG, Viola TW, Araujo RB. Craving E Dependência De Crack: Diferenças Entre Gêneros. *Psicol Arg.* (2015) 33:258–65. doi: 10.7213/psicol.argum.33.081.AO03
17. Bobzean SA, DeNobrega AK, Perrotti LI. Sex differences in the neurobiology of drug addiction. *Exp Neurol.* (2014) 259:64–74. doi: 10.1016/j.expneurol.2014.01.022
18. Bastos FIPM, Bertoni N. Pesquisa Nacional Sobre O Uso De Crack: Quem São Os Usuários De Crack E/Ou Similares Do Brasil? *Quantos São Nas Capitais Brasileiras*? Rio de Janeiro, RJ: Fundação Oswaldo Cruz. Instituto de Comunicação e Informação Científica e Tecnológica em Saúde. (2014).
19. Lejuez CW, Bornovalova MA, Reynolds EK, Daughters SB, Curtin JJ. Risk factors in the relationship between gender and crack/cocaine. *Exp Clin Psychopharmacol.* (2007) 15:165–75. doi: 10.1037/1064-1297.15.2.165
20. Sanvicente-Vieira B, Rovaris DL, Ornell F, Sordi A, Rothmann LM, Niederauer JPO, et al. Sex-based differences in multidimensional clinical assessments of early-abstinence crack cocaine users. *PLoS ONE.* (2019) 14:e0218334. doi: 10.1371/journal.pone.0218334
21. Moraes MEF, Roso A, Lara MPd. Gênero Como Uma Categoria De Análise Nos Estudos Brasileiros Sobre Mulheres E Consumo De Crack. *Rev Interinst Psicol.* (2018) 11:11–25. doi: 10.36298/gerais2019110103
22. Kennedy AP, Epstein DH, Phillips KA, Preston KL. Sex differences in cocaine/heroin users: drug-use triggers and craving in daily life. *Drug Alcohol Depend.* (2013) 132:29–37. doi: 10.1016/j.drugalcdep.2012.12.025
23. Terry-McElrath YM, O'Malley PM, Johnston LD. Reasons for drug use among American Youth by consumption level, gender, and race/ethnicity: 1976-2005. *J Drug Issues.* (2009) 39:677–714. doi: 10.1177/002204260903900310
24. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res in Psychol.* (2006) 3:77–101. doi: 10.1191/1478088706qp063oa
25. Maguire M, Delahunt B. Doing a thematic analysis: a practical, step-by-step guide for learning and teaching scholars. *Ir J High Educ.* (2017) 9:381–9.
26. Cafure B. Uma visão analítico-comportamental do uso de cocaína. *Univ Humanas.* (2015) 12:1–2. doi: 10.5102/univhum.v12i1.3336
27. Axelrod SR, Perepletchikova F, Holtzman K, Sinha R. Emotion regulation and substance use frequency in women with substance dependence and borderline personality disorder receiving dialectical behavior therapy. *Am J Drug Alcohol Abuse.* (2011) 37:37–42. doi: 10.3109/00952990.2010.535582
28. Dass-Brailsford P, Safilian C. Integrated approaches to treating psychological trauma and substance abuse in women: an update. *Trauma Acute Care.* (2017) 2:41. doi: 10.21767/2476-2105.100041
29. Karimy M, Rezaee-Momtaz M, Tavousi M, Montazeri A, Araban M. Risk factors associated with self-medication among women in Iran. *BMC Public Health.* (2019) 19:1033. doi: 10.1186/s12889-019-7302-3
30. Khantzian EJ. The self-medication hypothesis of addictive disorders: focus on heroin and cocaine dependence. *Am J Psychiatry.* (1985) 142:1259–64. doi: 10.1176/ajp.142.11.1259
31. Levy M. The many faces (and potential dangers) of self-medication as an explanatory concept for substance use. *Int J Adv Couns.* (2019) 41:15–24. doi: 10.1007/s10447-018-9341-3
32. Tull MT, McDermott MJ, Gratz KL, Coffey SF, Lejuez CW. Cocaine-related attentional bias following trauma cue exposure among cocaine dependent in-patients with and without post-traumatic stress disorder. *Addiction.* (2011) 106:1810–8. doi: 10.1111/j.1360-0443.2011.03508.x
33. Dollar CB, Hendrix JA. "I'm Not a Traditional Woman": Tranquilizer misuse as self-medication among adult women. *Am Behav Sci.* (2018) 62:1562–85. doi: 10.1177/0002764218787027
34. Fox HC, Axelrod SR, Paliwal P, Sleeper J, Sinha R. Difficulties in emotion regulation and impulse control during cocaine abstinence. *Drug Alcohol Depend.* (2007) 89:298–301. doi: 10.1016/j.drugalcdep.2006.12.026
35. Nolen-Hoeksema S. Emotion regulation and psychopathology: the role of gender. *Annu Rev Clin Psychol.* (2012) 8:161–87. doi: 10.1146/annurev-clinpsy-032511-143109
36. Sinha R. Chronic stress, drug use, and vulnerability to addiction. *Ann N Y Acad Sci.* (2008) 1141:105–30. doi: 10.1196/annals.1441.030
37. Del Bosque J, Mairena AF, Díaz DB, Espínola M, García ND, Abdalá AL, et al. La Cocaína: Consumo Y Consecuencias. *Salud Ment.* (2014) 37.
38. Hatsukami DK, Fischman MW. Crack cocaine and cocaine hydrochloride. Are the differences myth or reality? *JAMA.* (1996) 276:1580–8. doi: 10.1001/jama.276.19.1580
39. Ribeiro M, Duailibi S, Frajzinger R, Alonso AL, Marchetti L, Williams AV, et al. The Brazilian 'Cracolândia' open drug scene and the challenge of implementing a comprehensive and effective drug policy. *Addiction.* (2016) 111:571–3. doi: 10.1111/add.13151
40. Freitas PB, Pedroso RS, da Graça Tanori de Castro M, Secco K, Gonçalves PC, Alves GSL, et al. Expectativas de resultados relacionados ao efeito do uso do crack/cocaína em pacientes internados para desintoxicação. *Rev SBPH.* (2014) 17:123–36.
41. Carvalho HB, Seibel SD. Crack cocaine use and its relationship with violence and Hiv. *Clinics.* (2009) 64:857–66. doi: 10.1590/S1807-59322009000900006
42. Borloti EB, Haydu VB, Machado AR. Crack: análise comportamental e exemplos das funções da dependência. *Rev Latin de Anál de Comport.* (2015) 23:323–38.
43. Miguel AQC, Madruga CS, Cogo-Moreira H, Yamauchi R, Simões V, Da Silva CJ, et al. Sociodemographic characteristics, patterns of crack use, concomitant substance use disorders, and psychiatric symptomatology in treatment-seeking crack-dependent individuals in Brazil. *J Psychoactive Drugs.* (2018) 50:367–72. doi: 10.1080/02791072.2018.1436729
44. Miguel AQC, Madruga CS, Cogo-Moreira H, Yamauchi R, Simões V, Ribeiro A, et al. Contingency management targeting abstinence is

effective in reducing depressive and anxiety symptoms among crack cocaine-dependent individuals. *Exp Clin Psychopharmacol.* (2017) 25:466–72. doi: 10.1037/pha0000147
45. Limberger J, Andretta I. Desenvolvimento das habilidades sociais na vida de mulheres usuárias de crack: estudo de casos múltiplos. *Trends Psychol.* (2017) 25:1709–24. doi: 10.9788/TP2017.4-11Pt
46. Ribeiro M, Perrenoud LO, Duailibi S, Duailibi LB, Madruga C, Marques ACPR, et al. The Brazilian drug policy situation: the public health approach based on research undertaken in a developing country. *Public Health Rev.* (2013) 35:7. doi: 10.1007/BF03391706
47. Sayago CBW, Lucena-Santos P, Horta RL, Oliveira MDS. Perfil clínico e cognitivo de usuários de crack internados. *Psicol Reflex Crit.* (2014) 27:21–8. doi: 10.1590/S0102-79722014000100003
48. Vernaglia TVC, Leite TH, Faller S, Pechansky F, Kessler FHP, Cruz MS, et al. The female crack users: higher rates of social vulnerability in Brazil. *Health Care Women Int.* (2017) 38:1170–87. doi: 10.1080/07399332.2017.1367001
49. Jones AA, Dyer TV, Das A, Lasopa SO, Striley CW, Cottler LB. Risky sexual behaviors, substance use, and perceptions of risky behaviors among criminal justice involved women who trade sex. *J Drug Issues.* (2019) 49:15–27. doi: 10.1177/0022042618795141
50. Atkinson JS, Williams ML, Timpson SC, Schonnesson LN. Multiple sexual partnerships in a sample of African-American crack smokers. *AIDS Behav.* (2010) 14:48–58. doi: 10.1007/s10461-007-9346-0
51. Cook JA. Associations between use of crack cocaine and Hiv-1 disease progression: research findings and implications for mother-to-infant transmission. *Life Sci.* (2011) 88:931–9. doi: 10.1016/j.lfs.2011.01.003
52. Limberger J, Nascimento RdSd, Schneider JA, Andretta I. Women users of crack: systematic review of Brazilian literature. *Braz J Psychiatry.* (2016) 65:82–8. doi: 10.1590/0047-2085000000107
53. Tractenberg SG. Exposição a trauma e transtorno de estresse pós-traumático em usuárias de crack. *J Bras Psiquiatr.* (2012) 61:206–13. doi: 10.1590/S0047-20852012000400003
54. Medeiros KT, Maciel SC, Sousa PFd, Vieira GLS. Vivências e representações sobre o crack: um estudo com mulheres usuárias. *Psico-USF.* (2015) 20:517–28. doi: 10.1590/1413-82712015200313
55. Cruz VD, Oliveira MMD, Coimbra VCC, Kantorski LP, Pinho LBD, Oliveira JFD. Vivências de mulheres que consomem crack. *Rev Rene.* (2014) 15:639–49. doi: 10.15253/2175-6783.2014000400011
56. Greenfield SF, Trucco EM, McHugh RK, Lincoln M, Gallop RJ. The women's recovery group study: a stage i trial of women-focused group therapy for substance use disorders versus mixed-gender group drug counseling. *Drug Alcohol Depend.* (2007) 90:39–47. doi: 10.1016/j.drugalcdep.2007.02.009
57. Niccols A, Milligan K, Smith A, Sword W, Thabane L, Henderson J. Integrated programs for mothers with substance abuse issues and their children: a systematic review of studies reporting on child outcomes. *Child Abuse Neglect.* (2012) 36:308–22. doi: 10.1016/j.chiabu.2011.10.007
58. Doab A, Fowler C, Dawson A. Factors that influence mother–Child reunification for mothers with a history of substance use: a systematic review of the evidence to inform policy and practice in Australia. *Int J Drug Policy.* (2015) 26:820–31. doi: 10.1016/j.drugpo.2015.05.025
59. Silva LD, Strobbe S, Oliveira JL, Almeida LY, Cardano M, Souza J. Social support networks of users of crack cocaine and the role of a Brazilian Health Program for people living on the street: a qualitative study. *Arch Psychiatr Nurs.* (2021) 35:526–33. doi: 10.1016/j.apnu.2021.06.010
60. Canfield M, Radcliffe P, Marlow S, Boreham M, Gilchrist G. Maternal substance use and child protection: a rapid evidence assessment of factors associated with loss of child care. *Child Abuse Neglect.* (2017) 70:11–27. doi: 10.1016/j.chiabu.2017.05.005
61. Barros NAd, Tucci AM. Percepções dos usuários de crack sobre as suas relações familiares na infância e adolescência. *Psicol Teoria Pesquisa.* (2018) 34:10. doi: 10.1590/0102.3772e34418

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 17 May 2022
doi: 10.3389/fpsyt.2022.888197

Long-Term Outcomes for Young People With Substance Use Problems in Outpatient Treatment: Gender-Specific Patterns

Mikael Dahlberg[1]*, *Karin Boson*[2,3], *Mats Anderberg*[4] and *Peter Wennberg*[5,6]

[1] Department of Pedagogy and Learning, Linnaeus University, Växjö, Sweden, [2] Department of Psychology, Inland Norway University of Applied Sciences, Lillehammer, Norway, [3] Department of Psychology, University of Gothenburg, Gothenburg, Sweden, [4] Department of Social Work, Linnaeus University, Växjö, Sweden, [5] Department of Public Health Sciences, Stockholm University, Stockholm, Sweden, [6] Department of Global Public Health, Karolinska Institutet, Stockholm, Sweden

OPEN ACCESS

Edited by:
Lucy Webb,
Manchester Metropolitan University,
United Kingdom

Reviewed by:
Thomas Svendsen,
Stavanger University Hospital, Norway
Aleksander Hagen Erga,
Stavanger University Hospital, Norway

***Correspondence:**
Mikael Dahlberg
mikael.dahlberg@lnu.se

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: 02 March 2022
Accepted: 25 April 2022
Published: 17 May 2022

Citation:
Dahlberg M, Boson K, Anderberg M and Wennberg P (2022) Long-Term Outcomes for Young People With Substance Use Problems in Outpatient Treatment: Gender-Specific Patterns. Front. Psychiatry 13:888197. doi: 10.3389/fpsyt.2022.888197

This study presents the results of a longitudinal research project focusing on long-term outcomes among young people after initiation of outpatient treatment for substance use problems (SUP) in Sweden. Young people are defined with the age group 13–25 years. A clinical sample of 451 young people (29% girls, median age 17 years) completed a structured interview at baseline and was followed using official records one, two, and 3 years after initiation of treatment. Gender-specific patterns at intake were described and bivariate associations and logistic regressions were calculated to analyse the links between risk factors at treatment start and indications of substance use problems 3 years later. Significantly more boys than girls displayed indications of continued SUP at 3-year follow-up. More specifically, 49% of the boys vs. 35% of the girls were identified through records as still having problems with substance use. Predictive risk factors also displayed gender-specific patterns. Primary drug use frequency and age at intake predicted indications of SUP among boys but not among girls. Placement in foster care/residential homes, depression, and early drug debut had significant predictive value regarding indications of SUP among females but not among males. Girls also displayed a greater psychosocial burden at treatment start, but a more favorable treatment outcome at follow-up. Youths with a heavy risk load at treatment start (i.e., over six risk factors) did not display a greater risk of SUP at 3-year follow-up, although our results suggest that this subgroup has indications of continued problems with mental health. Consequently, future studies should further explore gender-specific treatment pathways for young people with substance use problems. Since women and girls seem to have different risk factors, co-occurring psychiatric problems and more experiences of trauma compared to men, they might need multidimensional and more comprehensive treatment interventions that run over a longer period of time.

Keywords: young people, gender differences, longitudinal, outpatient treatment, risk factors, substance use problems

INTRODUCTION

A common conclusion about risk factors for future problems with alcohol and drugs is that they are largely the same, regardless of gender (1–3). However, there is extensive support for individual risk factors having dissimilar effects on problem levels and consequences in girls and boys, respectively (4–6). Although the difference between girls' and boys' alcohol and drug use has decreased the last decades, boys still use these substances more extensively and develop problems with alcohol and drugs to a greater degree (7, 8). The size of the gender gap may also vary depending on age and substance. It can be seen as a tenacious myth in substance abuse research that women with alcohol and drug problems generally have poorer treatment outcomes than men (9); meanwhile, multiple studies have demonstrated better treatment outcomes for women than for men (5, 9). This follow-up study analyses the importance of gender for how central risk factors in young people with substance use problems (SUP) predict continued problems 3 years after initiation of outpatient treatment, with a particular focus on girls/young women. In Sweden, "young people" are defined with the age group 13–25 years.

In Sweden, specialized outpatient care for young people with SUP has increased in scope and is now available in several municipalities (10, 11). One such form of outpatient care is provided by so-called Maria clinics, where social services and healthcare collaborate. Collective knowledge of effective outpatient care measures for young people with SUP is limited compared with knowledge of equivalent treatment measures for adults (12, 13), even though these measures constitute the dominant form of treatment for young people (14). Follow-up studies have demonstrated that various outpatient treatment programmes generally contribute to reduced drug and alcohol use, but there are significant differences in results between studies regarding, for example, the share of young people who remain sober or drug-free for a given period after treatment (14). Few Swedish follow-up studies have examined young people with alcohol and drug problems (15, 16), so knowledge of how young people fare after participating in various treatment initiatives in Sweden is limited.

It has proven difficult to follow up young people with psychosocial problems, as many do not want to participate or are difficult to reach after treatment has ended (17–19). Young people who do not participate in follow-ups often have difficulties in other areas as well, for example, family problems, school problems, and criminality (20). Girls are thought to be slightly more inclined to participate in follow-up studies than are boys (21, 22). At the same time, there are strategies for achieving higher retention in longitudinal studies (23). An alternative approach for this kind of study could be to use national registers to follow young people who have participated in treatment measures in order to trace their development. The extensive selection of registers in Sweden facilitates studies that could provide new and valuable knowledge.

Follow-Up of Young People With Alcohol and Drug Problems

Treatment for young people with SUP is generally based on a goal of abstinence, even though relapse and return to drug use are relatively common (13, 22, 24). It is also the case that a relatively large proportion of treated young people begins new treatment during the follow-up period (25). In the research area, it is now also common for other outcome measures such as reduced substance use, mental illness and crime to be applied (14).

Most studies of young people who have undergone treatment for alcohol and drug problems report results after 6 or 12 months and it is more unusual with long-term follow-ups. In order to be able to investigate which risk factors in young people predict continued substance problems in the longer term, longitudinal studies are required when they are in young adulthood (7). Here, we present a selection of longitudinal studies of young people treated for alcohol and drug problems in which the follow-up times range from 1.5 to 8 years, most of which were conducted in the USA.

In a follow-up study of 232 young people (20% girls) who underwent different forms of outpatient care for problems with alcohol and drugs, half of them showed significant improvement 1.5 years after treatment (26). In one longitudinal study, 563 young people (18% girls) were followed up 3, 6, 9, 12, and 30 months after beginning outpatient treatment for problems with alcohol and drugs (27). Of these, 48% had no or low drug use at follow-up, although 18% of them were in treatment at the time. Another study followed up 144 young people (38% girls) with alcohol problems 1 and 3 years after outpatient or inpatient treatment, in order to identify trajectories relative to several background factors (28). Half of the young people displayed reduced alcohol consumption. Another study followed up 391 young people (38% girls) 3 months and 1, 3, 5, and 7 years after beginning 12-step treatment (29). Overall, 30–40% of them reported no alcohol use and ∼55% no drug use at follow-up 3, 5, and 7 years after beginning treatment. In one study, MDFT (multidimensional family therapy) was compared with CBT (cognitive-behavioral therapy) in outpatient care within the framework of juvenile court, 112 young people aged 13–18 years participated and 12% were girls (30). Both treatment methods produced comparable reductions (40%) in frequency of drug and alcohol use and in other substance-use-related problems at 2-year follow-up. Another study compared BSFT (behavioral family-based treatment) with standard outpatient treatment (31). After an average of 5 years, 261 young people (21% girls) were followed up. The results indicated no differences between the methods regarding drug and alcohol use: 12% did not use drugs or alcohol, 11% used only alcohol, 5% were back in treatment, and the rest reported drug use. In a Swedish 5-year follow-up of 147 young people (59% girls) with alcohol and drug problems who came into contact with a dependency clinic, 53% of the young people still had problems with substance use at follow-up (32).

Factors Predicting Treatment Outcome

In connection with follow-up studies, the factors that predict positive and negative outcomes are often examined (3, 33). These

factors could include those present in conjunction with initiation of treatment, as well as factors connected to the treatment being administered.

According to several studies, gender and ethnicity do not generally seem to be related to treatment outcomes (12, 14, 28, 34), although some follow-up studies find better outcomes in young women (29). Early debut of substance use is also a well-known risk factor for continued problems (35, 36). The severity of substance use at initiation of treatment is clearly linked to outcomes (14). Simultaneous mental health problems have been shown in several studies to predict worse outcomes (26, 27, 32, 34, 36); other studies, however, do not find differences in outcomes in young people with comorbidity (12, 14, 26). Parental substance abuse and neglect may be related to continued substance use in conjunction with follow-up (28, 32). Problems at school are also a significant risk factor (24). Factors that contribute to a greater degree to relapse after concluded treatment are spending time with friends who use alcohol and drugs or lack of extracurricular activities (24, 34). Criminality can also covary with substance use problems at follow-up (26, 32).

Treatment factors shown to affect relapse rate are low motivation, lack of parental involvement, and interrupted or shorter periods in treatment (12, 24, 29, 34, 37). According to one review, the first month after completed treatment is thought to entail the greatest risk of substance use relapse (34).

Overall, the results of the reported follow-up studies are consistent with research reviews concluding that 30–50% of young people relapse into drug use after outpatient treatment (13, 24). As seen from this review, knowledge about long-term outcomes after outpatient treatment is limited in terms of both follow-up studies and predictive factors. The majority of the studies are from the USA, with small and in some cases specific samples where the proportion of girls is generally low. This also applies to the studies investigating factors predicting continued SUP. This means that there are not usually analyses by gender, so the norm is boys/men.

Aim

This article presents the results of a longitudinal/prospective study of young people with SUP in Sweden who undergo outpatient treatment, based on data taken from official registers. It aims to describe and analyse indications of continued SUP and gender-specific risk patterns in predicting continued problems 3 years after initiation of treatment.

METHODS

This study was conducted within the framework of the research project Treatment Research on Adolescents at the Maria clinics (TRAM). The central aim of TRAM is to examine young people's change trajectories regarding alcohol and drug use, mental health, and social situation, as well as how specific risk and protective factors affect outcomes for various groups after outpatient treatment. The study has been ethically approved (Ref. no. 2015/160-31). The project combines data from structured interviews with young people at intake and data from various registers at follow-up 1 year after baseline. Similar strategies have been successfully used in several Swedish studies to follow up children and young people placed in various forms of institutional care or sentenced to custodial care or imprisonment (38–40).

Participants

Initial data were collected at Maria clinics in 12 Swedish cities, including Stockholm, Göteborg, and Malmö. These clinics are specialized outpatient units for young people with SUP and are operated in cooperation with social services and the healthcare system. The clinics offer various forms of individualized and/or manual-based treatment of alcohol and drug use disorders. The average episode of care is 4–6 months (41). The outpatient clinics are primarily aimed at young people aged 13–21. All young people aged 15 years and above who initiated contact with the Maria clinics in 2016 were invited to participate in the study; 932 individuals were informed and asked about participation in the study by the therapist in question and 469 chose to participate. Consent from parents or guardians is not required in Sweden when you are 15 years old. No register data were available for 14 individuals due to incomplete personal identification numbers or migration out of Sweden, and four youths had died during the follow-up period. Thus, a total of 451 young people participated in the 3-year follow-up study reported here. The age of the young people who make up the study sample has the age range 13–25.

Non-response

A non-response analysis shows that the study group (451 individuals) had somewhat more serious substance use problems than did the group (477 individuals) opting not to participate in the study. The study group consisted of 29% girls, while the non-response group was 22% girls. The mean age was 18 years in both groups. Regarding primary drug, both groups reported similar patterns: in the study group, 77% used cannabis as the primary drug, 14% alcohol, and 9% other drugs; in the non-response group, the proportions were 79% cannabis, 13% alcohol, and 8% other drugs. There were significant differences in other variables related to substance use, and the study group generally had more serious SUP than did the non-response group in terms of higher drug use frequency (49 vs. 41%), greater extent of mixed substance use (38 vs. 26%), and a larger proportion with previous substance abuse treatment (31 vs. 20%). These results differ from those of earlier follow-up studies, in which, in contrast, groups that opted not to participate often had more serious drug problem (21). The differences can likely be partially explained by the somewhat larger proportion of girls—who generally have higher psychosocial loads—in the study group (40).

Measures and Outcomes

When the treatment process began, initial data collection began via interviews based on the UngDOK interview. The purpose of this intake interview is to identify problems, needs, and current situation to enable relevant assessment, planning, and delivery of treatment. The semi-structured interview contains 75 questions in the following life domains: housing and financial support, employment, alcohol and drugs, treatment history, criminality, childhood, exposure to violence, family and relationship, and

TABLE 1 | Descriptive variables at treatment intake and indication of substance use problems at 3-year follow-up.

	Total $n = 451$	Girls $n = 132$	Boys $n = 319$	*P*
Intake				
Age m (SD)	17.9 (2.6)	17.7 (2.7)	18.0 (2.6)	ns
Live with parents (%)	72	70	73	ns
Serious conflicts with parents (%)	36	48	31	0.001
Attends school (%)	69	68	69	ns
Participation in extracurricular activities (%)	40	31	43	0.048
Risky alcohol consumption (%)	48	57	44	0.012
Primary drug (%)				
Cannabis	77	65	82	0.000
Alcohol	14	22	10	0.001
Other drugs	9	13	8	ns
Usage frequency 2–3 days/week or more (%)	49	52	48	ns
Mixed substance abuse (%)	38	43	36	ns
Previous substance abuse treatment (%)	31	27	32	ns
Ever convicted of crime (%)	33	20	38	0.000
Victim of crime (%)	51	48	52	ns
Experiences serious physical health problems last 30 days (%)	15	14	15	ns
Ever treated in psychiatric care (%)	21	30	17	0.001
Follow-up 3 year				
Indication SUP (%)	45	35	49	0.006

Data stated as percentages. Gender differences tested using the Chi^2 test (ns = not significant).

physical and mental health. Scoring of variables at baseline in the UngDOK interview was dichotomous (yes = 1/no = 0). Measures at intake have been previously described and the interview method has satisfactory reliability and validity (42).

The outcome measures used to analyse treatment results were based on experience gained in earlier studies and provided a multifaceted and reliable picture of the young peoples' progress (40). Data that indicated SUP at 3-year follow-up were taken from several different national registers. Incidence of substance use disorders (according to ICD-10) in connection with outpatient and inpatient physical, psychiatric, and addiction care was obtained from the National Board of Health and Welfare's Patient Register. Information about medication for alcohol and drug use disorders was found in the National Board of Health and Welfare's Pharmaceutical Register. The incidence of compulsory care for substance use disorders was taken from the National Board of Health and Welfare's Compulsory Care Register. Information on substance use–related criminality, such as drugs offenses or drink driving, was found in the Processed Offenses register kept by the Swedish National Council for Crime Prevention. Incidence in any of these registers were coded 1 = "Yes, indication of continued SUP". No incidence was coded 0 = "No indication of continued SUP."

Statistical Analyses

Chi-square testing of independence was used to compare frequencies between girls' and boys' reports regarding variables indicating SUP at 3-year follow-up (primary outcome variable) and general risk factors at treatment start. Effect sizes were calculated using Cramér's V and can be interpreted as weak (<0.20), moderate (0.20–0.39), and relatively strong (0.40–0.59), according to Rea and Parker (2014). Bivariate associations were calculated between risk factors and indications of SUP at 3-year follow-up. Logistic regressions were used to separately describe the predictive value of the risk factors, with indication of SUP as the outcome. Nagelkerke's quasi R^2 was used to determine model fit in terms of percentage of explained variance. This was done with and without controlling for gender, age, and drug use frequency (of the primary drug). In addition, gender-stratified analyses were conducted to investigate potential gender-specific risk patterns. Furthermore, logistic regression analysis was conducted to investigate the impact of cumulative risk load at treatment start on SUP at 3-year follow-up. To reduce the possibility of spurious significances arising due to multiple testing, the *p*-value of 0.05 must be interpreted with caution. SPSS 26 was used for all statistical analyses.

RESULTS

Gender Differences at Intake

Table 1 presents the basic characteristics of the study group, divided by girls and boys. The average age of both girls and boys was 18 years at the time of treatment start. Most of the young people lived with their parents and were in compulsory school or upper-secondary school. Girls had severe conflicts with their parents to a greater extent. Boys had regular extracurricular activities more often. There were significant gender differences regarding drug use. Cannabis was more likely to be the primary drug for boys than for girls, while a greater share of girls said alcohol was their main drug. Significantly more girls than boys engaged in risky alcohol consumption. Boys were convicted of crimes to a significantly greater extent, while the share of girls having ongoing contact with psychiatric care was significantly greater. Significantly, fewer girls than boys displayed indications of continued SUP at 3-year follow-up. More specifically, 46 of the girls (35%) vs. 156 of the boys (49%) were identified through records as still having SUP.

Predictive Factors

Furthermore, bivariate associations and predictive values of the risk factors, with and without controlling for gender, age, and primary drug use frequency, regarding the outcome variable indications of SUP at 3-year follow-up are presented in **Table 2**. Placement in foster care/residential home and early drug debut had significant predictive value regarding indications of continued SUP, both separately and combined with other risk factors [Model 1: $\chi^2_{[10]} = 20.971$, Nagelkerke's quasi $R^2 = 0.061$]. Early drug debut continued to display significant predictive value when the covariates gender, age, and primary drug use frequency were included [Model 2: $\chi^2_{[13]} = 41.963$, Nagelkerke's quasi $R^2 = 0.119$]. Regarding the significant predictors, gender effects were

TABLE 2 | Bivariate associations and logistic regression analyses of risk factors regarding indications of SUP 3 years after initiation of treatment.

	Bivariate associations	Model 1	Model 2 Full model
	OR (95% CI)	OR (95% CI)	OR (95% CI)
1. Lack of occupation	1.02 (0.63–1.64)	0.93 (0.56–1.56)	0.93 (0.53–1.62)
2. Problems at school	1.26 (0.82–1.94)	1.29 (0.80–2.05)	1.29 (0.80–2.08)
3. Placement in foster care/residential home	1.77 (1.11–2.81)*	1.72 (1.05–2.80)*	1.63 (0.99–2.70)
4. Problems in childhood environment	1.10 (0.75–1.60)	1.13 (0.73–1.73)	1.05 (0.68–1.62)
5. Early drug debut	1.79 (1.14–2.80)*	1.70 (1.05–2.71)*	1.92 (1.17–3.14)*
6. Delinquent peers	1.45 (0.91–2.31)	1.42 (0.88–2.29)	1.26 (0.76–2.08)
7. Exposure to violence	0.87 (0.60–1.28)	0.83 (0.54–1.27)	0.89 (0.57–1.39)
8. Depression	0.77 (0.52–1.15)	0.70 (0.45–1.10)	0.76 (0.47–1.22)
9. Violent behavior	1.21 (0.77–1.89)	1.44 (0.88–2.35)	1.44 (0.87–2.38)
10. Traumatic events	0.81 (0.55–1.20)	0.70 (0.45–1.09)	0.79 (0.50–1.25)

*$p < 0.05$.
**$p < 0.01$.
Odds ratios and confidence intervals are presented (n = 451).
Model 1 includes risk factors 1–10 and Model 2 includes risk factors 1–10 as well as age, gender, and primary drug use frequency at intake.

TABLE 3 | Bivariate associations between risk factors and indication of SUP 3 years after initiation of treatment.

	Girls ($n = 132$)			Boys ($n = 319$)		
	Bivariate associations	Model 3a	Model 4a Full model	Bivariate associations	Model 3b	Model 4b Full model
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
1. Lack of occupation	0.77 (0.28–2.16)	0.86 (0.28–2.62)	0.82 (0.26–2.57)	1.06 (0.61–1.84)	0.87 (0.47–1.59)	0.99 (0.51–1.91)
2. Problems at school	1.26 (0.50–3.16)	1.17 (0.41–3.32)	1.18 (0.41–3.40)	1.34 (0.82–2.21)	1.33 (0.78–2.27)	1.29 (0.75–2.23)
3. Placement in foster care/residential home	2.25 (0.96–5.26)	2.94 (1.13–7.67)*	2.85 (1.09–7.50)*	1.64 (0.94–2.86)	1.59 (0.87–2.90)	1.51 (0.81–2.79)
4. Problems in childhood environment	0.83 (0.40–1.75)	0.84 (0.35–2.01)	0.80 (0.33–1.96)	1.26 (0.81–1.97)	1.26 (0.76–2.08)	1.18 (0.70–1.98)
5. Early drug debut	2.48 (1.14–5.40)*	2.30 (1.01–5.24)*	2.37 (1.01–5.54)*	1.72 (0.98–3.02)	1.53 (0.84–2.79)	1.68 (0.90–3.12)
6. Delinquent peers	1.00 (0.39–2.56)	1.14 (0.41–3.22)	1.10 (0.38–3.21)	1.61 (0.93–2.77)	1.55 (0.88–2.72)	1.37 (0.76–2.46)
7. Exposure to violence	1.04 (0.47–2.30)	1.37 (0.51–3.70)	1.34 (0.49–3.65)	0.90 (0.58–1.41)	0.80 (0.49–1.30)	0.84 (0.51–1.40)
8. Depression	0.53 (0.25–1.13)	0.32 (0.12–0.85)*	0.32 (0.12–0.84)*	0.97 (0.60–1.57)	0.91 (0.53–1.56)	1.00 (0.56–1.78)
9. Violent behavior	1.25 (0.54–2.86)	2.15 (0.81–5.74)	2.20 (0.81–5.99)	1.23 (0.72–2.10)	1.36 (0.75–2.49)	1.33 (0.72–2.47)
10. Traumatic events	1.05 (0.52–2.16)	1.32 (0.56–3.09)	1.29 (0.55–3.04)	0.81 (0.50–1.32)	0.62 (0.36–1.07)	0.70 (0.40–1.24)

*$p < 0.05$.
**$p < 0.01$.
Analyses stratified by gender.
Models 3a and 4a include risk factors 1–10 and Model 3b and 4b risk factors 1–10 as well as age and primary drug use frequency at intake.

found for early drug debut, i.e., girls 29 vs. boys 20% [$\chi^2_{[1]} = 4.092$, $p = 0.043$, Cramér's V = 0.095], but not for placement in foster care/residential home. Model 2 also showed that the three covariates in themselves were significant factors predicting outcomes, i.e., age: OR = 0.91 (95% CI = 0.83–1.00), $p = 0.038$; gender: OR = 0.50 (95% CI = 0.32–0.79), $p = 0.030$; and primary drug use frequency: OR = 2.10 (95% CI = 1.38–3.22), $p = 0.001$. Therefore, new analyses stratified by gender were conducted to explore potential gender-specific patterns regarding risk factors and continued SUP 2 years after initiation of treatment (see **Table 3**).

Gender Differences in Predictive Factors

The gender-stratified analyses showed that placement in foster care/residential home and early drug debut, along with depression, had predictive value in the female group [Model 3a: $\chi^2_{[10]} = 15.370$, Nagelkerke's quasi $R^2 = 0.151$; Model 4a: $\chi^2_{[12]} = 15.726$, Nagelkerke's quasi $R^2 = 0.119$]. A quite different pattern emerged among males, as covariates such as age and primary drug use frequency at treatment start had distinctive predictive effects regarding continued SUP among boys, but not among girls, i.e., age: OR = 0.89 (95% CI = 0.79–0.99), $p = 0.029$, and primary drug use frequency: OR = 2.41 (95% CI = 1.47–3.94),

TABLE 4 | Odds ratios and confidence intervals for the association between adolescent cumulative risk and indication of substance use problems 3 years after initiation of treatment ($n = 451$).

	Model 5	Model 6 Full model
	OR (95% CI)	OR (95% CI)
0–2 risk factors (31%) ref	1	1
3–5 risk factors (49%)	0.76 (0.45–1.29)	0.60 (0.34–1.07)
6–10 risk factors (21%)	0.85 (0.52–1.38)	0.72 (0.43–1.20)

Model 4 includes the level of cumulative risk as well as age, gender, and primary drug use frequency at intake.
*$p < 0.05$.
**$p < 0.01$.

$p = 0.000$; Model 3b [$\chi^2_{[10]} = 13.393$, $p = 0.203$, Nagelkerke's quasi $R^2 = 0.055$] and Model 4b [$\chi^2_{[12]} = 28.026$, $p = 0.005$, Nagelkerke's quasi $R^2 = 0.112$].

Cumulative Effect

Table 4 shows the effect of cumulative risk linked to indications of substance use problems at 3-year follow-up. No significant effects were found for the uncontrolled model [Model 5: $\chi^2_{[2]} = 1.028$, Nagelkerke's quasi $R^2 = 0.003$]. However, when controlling for gender, age, and primary drug use frequency, Model 6 was significant [$\chi^2_{[5]} = 26.854$, Nagelkerke's quasi $R^2 = 0.077$]. In this model, all three covariates contributed significantly, i.e., age: OR = 0.91 (95% CI = 0.83–1.00), $p = 0.038$; gender: OR = 0.50 (95% CI = 0.32–0.79), $p = 0.030$; and primary drug use frequency: OR = 2.10 (95% CI = 1.38–3.22), $p = 0.001$. Further analyses stratified by gender were conducted to explore potential gender-specific patterns. The cumulative risk also lacks predictive value for both girls and boys at 3-year follow-up. Nevertheless, the results indicated that age and primary drug use frequency were significant predictors among boys, i.e., age: OR = 0.86 (95% CI = 0.78–0.95), $p = 0.003$; and primary drug use frequency: OR = 2.58 (95% CI = 1.59–4.18), $p = 0.000$. The same pattern was not evident among girls.

The group with the highest cumulative risk had a lower risk of continuing indication of SUP at 3-year follow-up. To test this, cumulative risk was cross-tabulated with indications of mental problems (i.e., outpatient, inpatient, or medical prescription) from the official records. The results showed that a significantly higher proportion of youth with more than six risk factors has indications of continued problems with mental health compared with those who do not have this indication (65 vs. 35%). In this group there is also an overrepresentation of girls.

DISCUSSION

The article presents the results of a prospective study of young people with SUP in Sweden who undergo outpatient treatment. The results are based on data taken from official registers. The study describes and analyses indications of continued SUP and gender-specific risk patterns in predicting continued problems 3 years after initiation of treatment.

When it comes to gender differences, girls and boys display similarities regarding their experiences of general risk factors at treatment start, but the results indicate that girls are more likely to have a psychosocial burden connected to mental health and risk behaviors, which is consistent with the findings of other studies (43–45). However, the boys' profile indicates a higher rate of criminality (32, 45, 46). Furthermore, this study shows that different types of risk behaviors in conjunction with start of treatment for alcohol and drug problems may have different implications for women and men on their way into young adulthood, and that the outcome may subsequently differ in relation to gender. First, the study shows that girls, to a considerably greater degree, lack indications of continued SUP compared with boys 3 years after treatment start—even though they are more psychosocially burdened than are boys at initiation of treatment, as other studies have also demonstrated (29, 47). A possible explanation is that girls mature earlier than boys of the same age (48). Many youths stop using drugs in young adulthood despite relatively extensive use as teenagers (8). Completion of school, transition into adult roles or opportunities for further education or other occupations, and changes in peers are associated with decreasing drug use (7). Another hypothesis is that women benefit more from the type of treatment that the relevant outpatient care clinics provide, in which creating trusting relationships and therapeutic conversations between care providers and young people are considered particularly important (49). Women may also have several other treatment contacts, for example, psychologists or GP's, after completing outpatient treatment.

When analyzing individual risk factors, several of them predict continued indications of SUP 3 years later. For girls, placement in a foster home/institution, early drug debut, and depression had predictive effects regarding a negative outcome. For boys, more general risk factors had an impact on outcome. Higher age at the start of treatment contact and a high frequency of use for the drug that caused the youth the most problems had clearly predictive effects on continued SUP among boys. Conversely, this means that early intervention at a younger age can predict a positive treatment outcome. The study also illustrates clear gender differences concerning several specific risk factors, which runs contrary to earlier assumptions that there are more similarities than differences between girls and boys regarding risk and protective factors (48, 50, 51). The fact that specific risk factors may have significance at different points in time—in other words, that some risk factors predict outcomes in the short term while others have more significance in the longer term—has previously been demonstrated in other studies (52, 53). It has also been demonstrated that risk factors common to girls and boys in their early teens do not apply to older youths (2, 48).

Another slightly surprising result is that the cumulative effect of risk that was evident at 1-year follow-up (54) and that was tested in this study no longer has the same significance. This result is also partly in opposition to the conclusions of several previous studies that the more risk factors there are, the more

severe future problems with substance use will be (55–58). The reduced predictive capacity of cumulative risk may have several potential explanations, for example, that the strength of the prediction declines over time or that other risk factors not captured during enrolment in treatment are more important. It is also possible that models based on risk factors and protective factors are better suited to normal populations than to individuals who have already developed problems with alcohol and drugs, and who are the subjects of treatment for those problems. It could also be that the short-term outcome gradually decreases in what is called regression to the mean—in other words, some young people are at the beginning of a drug career when treatment begins, while others with longer-standing and more extensive SUP may make more progress over time (12, 14, 24). The fact that the model does not predict outcomes over a longer period may also be hopeful in a sense, in that young people with severe drug problems may also have a positive outcome. The risk factor model could be perceived as deterministic, but at the same time, many of its factors can be influenced.

Limitations

The reported study is part of a research project on the outpatient treatment of young people with SUP in a naturalistic context, with follow-ups at 3 years. One limitation of register follow-up, however, is that certain central variables, such as frequencies of continued SUP, do not appear in official registers. At the same time, the non-response analysis shows that the study sample generally had more serious psychosocial problems than did the non-participant group. Another limitation is that CUS is not always detectable in registers, which may lead to underestimation. We deliberately chose to use a more conservative outcome measure (i.e., no register indication of SUP in the last 2 years) to be sure to establish an outcome measure with high specificity.

Another limitation of the study is that its results are not immediately generalisable to young people with SUP engaged in other types of treatment, such as compulsory care or inpatient treatment. However, a strength of the study is that the included young people represent several outpatient clinics in various Swedish cities, contributing to reasonably high generalisability concerning substance use among young people involved in such care. Combining information from structured interviews at baseline and several different register sources at follow-up produces reliable data and could be an innovative method for addressing the problem of non-response, which is common in traditional follow-up studies (18). For further research, studies are planned where existing risk factors are supplemented with other variables at both individual and structural level, such as psychiatric diagnoses and socio-economic background.

Implications

A commonly occurring pattern in substance abuse treatment is that men or boys are overrepresented, despite the minor gender differences in drug use typically seen in normal populations. Previously, this was thought to be related to the male gender having more explicit problems with alcohol and drugs than the female gender. More recently, this explanation has been increasingly reconsidered and alternative interpretations have been proposed, for example, that the apparent gender difference instead concerns selection factors, such as the judicial system making significant referrals to substance abuse care (45, 59). This could mean that girls/women are only considered eligible for treatment at a later phase, and are thus not given adequate and timely support. Could it be that men have precedence in this area of healthcare as well? The gender difference may also be connected to a gendered socialization process in which women, to a greater extent than men, learn to discipline themselves and internalize their problems, which could help make their problems less visible to close relatives, schools, and other social institutions (4, 60). Women's SUP therefore merit more attention.

At the same time, it is thought that women or girls who begins treatment generally have more comprehensive and complex problems in multiple areas of life (44). The study clearly shows that outpatient treatment appears to provide positive outcomes, especially for girls regarding indications of SUP at 3-year follow-up. At the same time, it is important to analyse other outcomes, such as mental health problems.

Our analyses show that young people with a heavy risk load at treatment start (i.e., more than six co-occurring risk factors) do not display greater risk of SUP indication 3 years later. The fact that girls are overrepresented in this subgroup and take part in interventions for mental health may indicate that they receive help with an underlying problem that substance use is an expression of.

The study highlights the importance of identifying significant similarities and differences between girls and boys with alcohol and drug problems, as this knowledge can be of great importance for the design of both preventive measures and treatment elements. Since women and girls seem to have different risk factors, co-occurring psychiatric problems and more experiences of trauma compared to men, they might have different needs in treatment. These differences might not be adequately addressed in current substance use treatments (9). These can, for example, consist of multidimensional or more comprehensive treatment interventions that run over a longer period and complementary trauma treatment that has been shown to reduce both trauma symptoms and substance use (61). Since a large proportion of girls to a much greater extent than boys have experience of previous contacts with psychiatry, it should also be possible to draw attention to them and offer more relevant support at an earlier stage

Consequently, future studies should delve deeper into treatment pathways for young people with SUP. The study also illustrates the importance of conducting analyses by gender, in both descriptive and outcome studies, in order to obtain a more thorough knowledge of women's substance use problems and development pathways after treatment.

CONCLUSIONS

The study identifies gender-specific patterns in the psychosocial characteristics at treatment start and in risk factors indicative of SUP. Girls displayed a greater psychosocial burden at treatment

start, but a more favorable treatment outcome at follow-up. Gender and primary drug use frequency explained more than did the other risk factors. Cumulative high risk (i.e., more than six risk factors) did not predict long-term indications of SUP.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Regional Ethics Review Board, Linköping University (Ref. no. 2015/160-31). Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

FUNDING

The research project was supported by Kamprad Family Foundation for Entrepreneurship, Research and Charity (4711 01 35), and Swedish Research Council for Health, Working Life and Welfare (2019-00549).

REFERENCES

1. Hawkins JD. Controlling crime before it happens: risk-focused prevention. *Natl Institute Justice J.* (1995) 1995:10–18. doi: 10.1037/e564312006-002
2. Merline A, Jager J, Schulenberg JE. Adolescent risk factors for adult alcohol use and abuse: stability and change of predictive value across early and middle adulthood. *Addiction*. (2008) 103:84–99. doi: 10.1111/j.1360-0443.2008.02178.x
3. Shekhtmeyster Z, Sharkey J, You S. The influence of multiple ecological assets on substance use patterns of diverse adolescents. *Sch Psychol Rev*. (2011) 40:386–404. doi: 10.1080/02796015.2011.12087705
4. Amaro H, Blake SM, Schwartz PM, Flinchbaugh LJ. Developing theory-based substance abuse prevention programs for young adolescent girls. *J Early Adolesc*. (2001) 21:256–93. doi: 10.1177/0272431601021003002
5. Green CA. Gender and use of substance abuse treatment services. *Alcohol Res Health*. (2006) 29:55–62.
6. Vaughan EL, Gassman RA, Jun MC, Seitz de Martinez BJ. Gender differences in risk and protective factors for alcohol use and substance use problems among hispanic adolescents. *J Child Adolesc Subst Abuse*. (2015) 24:243–54. doi: 10.1080/1067828X.2013.826609
7. Stone AL, Becker LG, Huber AM, Catalano RF. Review of risk and protective factors of substance use and problem use in emerging adulthood. *Addict Behav*. (2012) 37:747–75. doi: 10.1016/j.addbeh.2012.02.014
8. von Sydow K, Lieb R, Pfister H, Höfler M, Wittchen H-U. What predicts incident use of cannabis and progression to abuse and dependence? A 4-year prospective examination of risk factors in a community sample of adolescents and young adults. *Drug Alcohol Depend*. (2002) 68:49–64. doi: 10.1016/S0376-8716(02)00102-3
9. Greenfield S, Brooks A, Gordon S, Green C, Kropp F, McHugh RK, et al. Substance abuse treatment entry, retention, and outcome in women: a review of the literature. *Drug Alcohol Depend*. (2006) 86:1–21. doi: 10.1016/j.drugalcdep.2006.05.012
10. Patriksson K. *Kartläggning av hur mottagningar i Nationella Cannabisnätverket arbetar med tidiga interventioner vid cannabis-användning. [Mapping how clinics in the National Cannabis Network work with early interventions for cannabis use]*. Gothenburg: Nationella Cannabisnätverket (2014).
11. Stenius K. *Treatment of Cannabis-Related Problems in the Nordic Countries*. Helsingfors: The Nordic Welfare Centre (2019).
12. Tanner-Smith EE, Wilson SJ, Lipsey MW. The comparative effectiveness of outpatient treatment for adolescent substance abuse: a meta-analysis. *J Subst Abuse Treat*. (2013) 44:145–58. doi: 10.1016/j.jsat.2012.05.006
13. Winters KC, Botzet AM, Fahnhorst T. Advances in adolescent substance abuse treatment. *Curr Psychiatry Rep*. (2011) 13:416–21. doi: 10.1007/s11920-011-0214-2
14. Hogue A, Henderson CE, Becker SJ, Knight DK. Evidence base on outpatient behavioral treatments for adolescent substance use, 2014-2017: outcomes, treatment delivery, promising horizons. *J Clin Child Adolesc Psychol*. (2018) 47:499–526. doi: 10.1080/15374416.2018.1466307
15. Jacobsson J, Richter C, Tengström A, Borg S. *Ungdomar Och Missbruk – Kunskap och Praktik. [Adolescents and substance abuse – Knowledge and Practice]*. Report for Missbruksutredningen. Stockholm: Beroendecentrum, Stockholm (2011).
16. SKL. *Handlingsplan mot missbruk och beroende. Tidig upptäckt, tidiga insatser, stöd och behandling för personer i åldern 13-29 år. [Action plan for substance abuse and dependency: Early detection, early interventions, support and treatment for people ages 13-29.]* Stockholm: Swedish Association of Local Authorities and Regions (SALAR) (2018).
17. Becker SJ, Curry JF, Yang C. Factors that influence trajectories of change in frequency of substance use and quality of life among adolescents receiving a brief intervention. *J Subst Abuse Treat*. (2011) 41:294–304. doi: 10.1016/j.jsat.2011.04.004
18. Garner BR, Passetti LL, Orndorff MG, Godley SH. Reasons for and attitudes toward follow-up research participation among adolescents enrolled in an outpatient substance abuse treatment program. *J Child Adoles Subst Abuse*. (2007) 16:45–57. doi: 10.1300/J029v16n04_03
19. Nordqvist S. *Uppföljning 2000-2002 ADAD. [Follow-up 2000-2002 ADAD.]* Stockholm: Statens institutionsstyrelse (2005).
20. Meyers K, Webb A, Frantz J, Randall M. What does it take to retain substance-abusing adolescents in research protocols? Delineation of effort required, strategies undertaken, costs incurred, and 6-month post-treatment differences by retention difficulty. *Drug Alcohol Depend*. (2003) 69:73–85. doi: 10.1016/S0376-8716(02)00252-1
21. Hodgins S, Oliver BR, Tengström A, Larsson A. Adolescents who consulted for substance misuse problems: outcomes 1 year later. *Nord J Psychiatry*. (2010) 64:189–95. doi: 10.3109/08039480903389002
22. Hser YI, Grella CE, Hubbard RL, Hsieh SC, Fletcher BW, Brown BS, et al. An evaluation of drug treatments for adolescents in 4 US cities. *Arch Gen Psychiatry*. (2001) 58:689–93. doi: 10.1001/archpsyc.58.7.689
23. Scott C. A replicable model for achieving over 90% follow-up rates in longitudinal studies of substance abusers. *Drug Alcohol Depend*. (2004) 74:21–36. doi: 10.1016/j.drugalcdep.2003.11.007
24. Williams RJ, Chang SY. A comprehensive and comparative review of adolescent substance abuse treatment outcome. *Clin Psychol Sci Pract*. (2000) 7:138–66. doi: 10.1093/clipsy.7.2.138
25. Godley SH, Passetti LL, Fung RR, Garner BR, Godley MD. One-year treatment patterns and change trajectories for adolescents participating in outpatient treatment for the first time. *J Psychoactive Drugs*. (2008) 40:17–28. doi: 10.1080/02791072.2008.10399758

26. Waldron HB, Turner CW, Ozechowski TJ. Profiles of drug use behaviour change for adolescents in treatment. *Addict Behav.* (2005) 30:1775–96. doi: 10.1016/j.addbeh.2005.07.001
27. Godley SH, Jones N, Funk R, Ives M, Passetti LL. Comparing outcomes of best-practice and research-based outpatient treatment protocols for adolescents. *J Psychoactive Drugs.* (2004) 36:35–48. doi: 10.1080/02791072.2004.10399722
28. Chung T, Martin C, Grella C, Winters K, Abrantes A, Brown S. Course of alcohol problems in treated adolescents. *Alcohol Clin Exp Res.* (2003) 27:253–61. doi: 10.1097/01.ALC.0000053009.66472.5E
29. Chi F, Campbell C, Sterling S, Weisner C. Twelve-step attendance trajectories over 7 years among adolescents entering substance use treatment in an integrated health plan. *Addiction.* (2012) 107:933–42. doi: 10.1111/j.1360-0443.2011.03758.x
30. Dakof GA, Henderson CE, Rowe CL, Boustani M, Greenbaum PE, Wang W, et al. A randomized controlled trial of family therapy in juvenile drug court. *J Fam Psychol.* (2015) 29:232–41. doi: 10.1037/fam0000053
31. Horigian VE, Feaster DJ, Robbins MS, Brincks AM, Ucha J, Rohrbaugh MJ, et al. A cross-sectional assessment of the long term effects of brief strategic family therapy for adolescent substance use. *Am J Addict.* (2015) 24:637–45. doi: 10.1111/ajad.12278
32. Hodgins S, Lövenhag S, Rehn M, Nilsson KW. A 5-year follow-up study of adolescents who sought treatment for substance misuse in Sweden. *Eur Child Adolesc Psychiatry.* (2014) 23:347–60. doi: 10.1007/s00787-013-0456-0
33. Fleming C, Catalano R, Haggerty K, Abbott R. Relationships between level and change in family, school, and peer factors during two periods of adolescence and problem behavior at age 19. *J Youth Adolesc.* (2010) 39:670–82. doi: 10.1007/s10964-010-9526-5
34. Chung T, Maisto S. Relapse to alcohol and other drug use in treated adolescents: review and reconsideration of relapse as a change point in clinical course. *Clin Psychol Rev.* (2006) 26:149–61. doi: 10.1016/j.cpr.2005.11.004
35. Chi FW, Weisner C, Grella CE, Hser Y, Moore C, Mertens J. Does age at first treatment episode make a difference in outcomes over 11 years? *J Subst Abuse Treat.* (2014) 46:482–90. doi: 10.1016/j.jsat.2013.12.003
36. Hser Y, Longshore D, Anglin M. The life course perspective on drug use. *Eval Rev.* (2007) 31:515–47. doi: 10.1177/0193841X07307316
37. Becker SJ, Curry JF. Outpatient interventions for adolescent substance abuse: a quality of evidence review. *J Consult Clin Psychol.* (2008) 76:531–43. doi: 10.1037/0022-006X.76.4.531
38. Franzén E, Vinnerljung B, Hjern A. The epidemiology of out-of-home care for children and youth: a national cohort study. *Br J Soc Work.* (2008) 38:1043–59. doi: 10.1093/bjsw/bcl380
39. Shannon D. (2011) *Follow-up of youths admitted to SiS youth care facilities 1997-2001.* Stockholm: Statens institutionsstyrelse.
40. Vinnerljung B, Sallnäs M. Into adulthood: a follow-up study of 718 young people who were placed in out-of-home care during their teens. *Child Fam Soc Work.* (2008) 13:144–55. doi: 10.1111/j.1365-2206.2007.00527.x
41. Anderberg M, Dahlberg M. Gender differences among adolescents with substance abuse problems at Maria clinics in Sweden. *Nord Stud Alcohol Drugs.* (2018) 35:24–38. doi: 10.1177/1455072517751263
42. Dahlberg M, Anderberg M, Wennberg P. Psychometric properties of the UngDOK – a structured interview for adolescents with substance use problems. *Nord Stud Alcohol Drugs.* (2017) 34:160–72. doi: 10.1177/1455072516687440
43. Foster K, Hicks B, Iacono W, McGue M. Gender differences in the structure of risk for alcohol use disorder in adolescence and young adulthood. *Psychol Med.* (2015) 45:3047–58. doi: 10.1017/S0033291715001014
44. James PD, Smyth BP, Apantaku-Olajide T. Substance use and psychiatric disorders in Irish adolescents: a cross-sectional study of patients attending substance abuse treatment service. *Ment Health Subst Use.* (2013) 6:124–32. doi: 10.1080/17523281.2012.693519
45. Mitchell PF, Kutin JJ, Daley K, Best D, Bruun AJ. Gender differences in psychosocial complexity for a cohort of adolescents attending youth-specific substance abuse services. *Child Youth Serv Rev.* (2016) 68:34–43. doi: 10.1016/j.childyouth.2016.06.016
46. Grella CE, Joshi V, Hser YI. Effects of comorbidity on treatment processes and outcomes among adolescents in drug treatment programs. *J Child Adolesc Subst Abuse.* (2004) 13:13–31. doi: 10.1300/J029v13n04_02
47. Latimer WW, Newcomb M, Winters KC, Stinchfield RD. Adolescent substance abuse treatment outcome: the role of substance abuse problem severity, psychosocial, treatment factors. *J Consult Clin Psychol.* (2000) 68:684–96. doi: 10.1037/0022-006X.68.4.684
48. El-Khouri BM, Sundell K, Strandberg A. *Riskfaktorer för Normbrytande Beteenden. Skillnader mellan flickor och pojkar i tonåren. [Risk factors for norm-breaking behaviours: Differences between teenage girls and boys.]* Stockholm: Forsknings- och Utvecklingsenheten, Stockholms stad (Research and Development Unit, City of Stockholm) (2005).
49. Hugo M, Anderberg M, Dahlberg M. *Between Motivation and Unwillingness: Young People in Outpatient Treatment for Substance Use Problems*. Youth Voice Journal, ISSN (online): 2969.
50. Arthur MW, Hawkins JD, Pollard JA, Catalano RF, Baglioni AJ. Measuring risk and protective factors for substance use, delinquency, and other adolescent problem behaviors: the communities that care youth survey. *Eval Rev.* (2002) 26:575–601. doi: 10.1177/0193841X02237850
51. Bränström R, Sjöström E, Andréasson S. Individual, group and community risk and protective factors for alcohol and drug use among Swedish Adolescents. *Eur J Public Health.* (2007) 18:12–8. doi: 10.1093/eurpub/ckm038
52. Cleveland MJ, Feinberg ME, Bontempo DE, Greenberg MT. The role of risk and protective factors in substance use across adolescence. *J Adolesc Health.* (2008) 43:157–64. doi: 10.1016/j.jadohealth.2008.01.015
53. MacLean SJ, Kutin J, Best D, Bruun A, Green R. Risk profiles for early adolescents who regularly use alcohol and other drugs compared with older youth. *Vulnerable Child Youth Stud.* (2014) 9:17–27. doi: 10.1080/17450128.2012.750025
54. Anderberg M, Dahlberg M, Wennberg P. Adolescents with substance abuse problems in outpatient treatment: a one-year prospective follow-up study. *Nord Stud Alcohol Drugs.* (2021) 38:466–79. doi: 10.1177/1455072521995611
55. Eassey J, Gibson C, Krohn M. Using a group-based trajectory approach to assess risk and protective factors of marijuana use. *J Drug Issues.* (2015) 45:4–21. doi: 10.1177/0022042614542508
56. Hawkins JD, Catalano RF, Miller JY. Risk and protective factors for alcohol and other drug problems in adolescense and early adulthood: imlications for substance abuse prevention. *Psychol Bull.* (1992) 112:64–105. doi: 10.1037/0033-2909.112.1.64
57. Ostaszewski K, Zimmerman M. The effects of cumulative risks and promotive factors on urban adolescent alcohol and other drug use: a longitudinal study of resiliency. *Am J Community Psychol.* (2006) 38:251–62. doi: 10.1007/s10464-006-9076-x
58. Zufferey A, Michaud P, Jeannin A, Berchtold A, Chossis I, Van Melle G, et al. Cumulative risk factors for adolescent alcohol misuse and its perceived consequences among 16 to 20 year old adolescents in Switzerland. *Prev Med.* (2007) 45:233–9. doi: 10.1016/j.ypmed.2007.04.015
59. Landsverk J, Reid JB. Introduction to evidence-based interventions for girls: from prevention to treatment. *J Child Adolesc Subst Abuse.* (2013) 22:365–9. doi: 10.1080/1067828X.2013.788875
60. Whaley RB, Hayes R, Smith JM. Differential reactions to school bonds, peers, and victimization in the case of adolescent substance use: the moderating effect of sex. *Crime Delinq.* (2016) 62:1263–85. doi: 10.1177/0011128714541195
61. Torchalla I, Nosen L, Rostam H, Allen P. Integrated treatment programs for individuals with concurrent substance use disorders and trauma experiences:

a systematic review and meta-analysis. *J Subst Abuse Treat.* (2012) 42:65–77. doi: 10.1016/j.jsat.2011.09.001

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 17 May 2022
doi: 10.3389/fpsyt.2022.882128

Taking Care of Business in a Male – Dominated Drug Economy: Income Strategies, Risks, and Opportunities of Women Who Use Drugs

*Torkel Richert**

Department of Social Work, Malmö University, Malmö, Sweden

OPEN ACCESS

Edited by:
Lucy Webb,
Manchester Metropolitan University,
United Kingdom

Reviewed by:
Ellie Schemenauer,
University of Wisconsin–Whitewater,
United States
Julia Buxton,
The University of Manchester,
United Kingdom

***Correspondence:**
Torkel Richert
torkel.richert@mau.se

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: *23 February 2022*
Accepted: *20 April 2022*
Published: *17 May 2022*

Citation:
Richert T (2022) Taking Care of Business in a Male – Dominated Drug Economy: Income Strategies, Risks, and Opportunities of Women Who Use Drugs. Front. Psychiatry 13:882128. doi: 10.3389/fpsyt.2022.882128

Background: Street level drug economies are often described as hierarchical and gender-segregated arenas where men hold high positions and control the supply of drugs, and where women are confined to marginal and low-level positions. Few studies have explored income strategies, risks and opportunities of women who use drugs within drug economies in the Nordic countries.

Objective: The aim of this study was to analyze women's stories about "taking care of business"–making money and securing drugs–in a local drug economy. The study focuses on the women's gender enactments, the strategies they use to achieve success, and the barriers and risks they face in their everyday endeavors.

Methods: This article draws on informal conversations and in-depth qualitative interviews with 27 female drug users in Malmö, Sweden during periods of fieldwork between 2009 and 2012.

Results: The interviewed women had established themselves as entrepreneurs in the local drug economy, working hard for their money. However, only a few held middle or high positions, and all women described encountering gendered obstacles and risks in their efforts to take care of business. The patriarchal and sexualized nature of the drug economy meant special prerequisites for the women's income strategies and gender enactments. Three main income strategies were distinguished in the women's stories: (1) using femininity and sexuality, (2) proving tough and dangerous by using street masculinity, and (3) establishing trust, being professional, and keeping a low profile. These strategies involved different advantages and disadvantages, as well as different types of risk.

Conclusions: The results show that it is possible for women to achieve success in male-dominated drug economies, but that this is associated with major challenges. Gendered social hierarchies, structures and norms seem to influence the women's gender enactments, opportunities and risks. However, factors such as type of drug use,

degree of drug dependence and social position, was also decisive for their possibility of taking care of business. This points to the importance of combining a focus on gender with a focus on other determants of power relations and vulnerabilities, when studying the everyday lives of people who use drugs.

Keywords: drug use, addiction, women, gender, drug economy, risks, sexuality

INTRODUCTION

This study is about women who use drugs and their ways of "taking care of business"–making money and securing drugs–within a male-dominated drug economy. The study is based on conversations and in-depth interviews with 27 women with a long-term injection use of heroin or amphetamine. At the time of the interviews, the women were all active in the street level drug economy in the city of Malmö, Sweden.

Regular use of drugs such as heroin or amphetamine is expensive to fund. Developing different supply strategies therefore becomes a very important and time-consuming part of the lives of people who use such substances (1, 2). Few people with extensive drug use are able to finance their drug use solely through legal income (3, 4), and they also face several barriers to obtaining and maintaining formal employment, including poverty, homelessness, discrimination and criminalization (5). Although marginalized drug users often move between formal, informal and illegal income-generating activities, most have to establish themselves as entrepreneurs within the illegal drug economy (1, 5). "Taking care of business" often involves a full-time job that requires endurance, knowledge, risk management, skills and resources (6). It involves a lifestyle that differs from the stereotype image of "drug addicts" as passive, powerless and withdrawn (7).

Drug scenes and street level drug economies tend to be heavily male-dominated. These are, to a large extent, arenas where masculine norms and values govern and where men control most of the supply of drugs (8–10). Drug economies are often described as highly gender-segregated and hierarchical labor markets where the majority of women are confined to marginal and low-level positions (11–15). Women in drug economies are often considered less reliable and less able to handle illegal businesses in comparison with their male colleagues–something that Steffensmeier (16) has discussed in terms of an "institutional sexism" in criminal networks.

An important factor affecting the possibility to succeed in street level drug economies is risk management. The risks of dealing, fencing, and of other illicit businesses in street level drug economies have been described as somewhat similar to those of legitimate businesses, including competition, unsecure transactions, liability, and law enforcement involvement (17), but the intensity of these risks are much higher given the illicit nature of the activities (18). Illegal income-generating activities and street-based drug scenes are also to a great extent characterized by structural, symbolic and everyday violence (5, 10). Street level dealers use a range of strategies to reduce risk, including making careful decisions about what to sell, where to sell and whom to sell to, selling in groups, being mobile before and after transactions, dressing neutrally to avoid detection by police, and cultivating a "tough reputation" or displaying "street masculinity" in order to avoid being ripped off or subjected to violence (18, 19). Exposure to risk and risk management may differ between men and women, due to gender norms in society and the patriarchal nature of drug economies. For example, women who use and sell drugs have been shown to be more likely to become victims of violence and theft, whereas men tend to be more vulnerable to police arrest (18).

Research on men and their roles within drug economies has a long history. Research on women in drug economies, on the other hand, has been largely lacking, although the number of studies has increased in recent decades. Much of the existing research tends to either place a strong focus on women's vulnerability, marginalization and powerlessness due to patriarchal structures, or focus on their agency, resourcefulness and empowerment (12, 15).

This study follows the tradition of a few more recent studies on women in drug economies that combine a focus on the structures that pose risks and barriers to women, with a focus on the women's agency and ways of dealing with barriers [see, for example (12, 18–20)].

The overall aim of the study was to analyze women's stories about taking care of business in a local drug economy. I specifically focused on the women's gender enactments, the strategies they used to achieve success, and the barriers and risks they faced in their everyday endeavors.

Theoretically, the study takes its starting point in the concept of "doing gender" (21). According to this perspective, rather than being socialized into stable gender roles, people "do" gender in everyday interactions. How gender is performed depends on the social context, as it takes form in response to a situated discourse on what it means to be a woman or a man. Individuals are constantly assessed on their ability to live up to socially expected gender norms, and are held accountable for their gendered performances (22). In this way, gender enactments are a response to gendered social hierarchies and expectations, but also reproduce and reinforce them (21).

The concept of "doing gender" has subsequently been used, criticized and further developed by, among others, sociologists and criminologists studying women who use and/or sell drugs. For instance, Miller (23) has argued that analyzes based on doing gender has a tendency to replicate gender dichotomies, putting too little focus on the situational and organizational context. A too strong focus on people's adherence to norms about masculinity and femininity may, according to Miller, limit our ability to fully understand inequality and how gendered actions

are a response to structural or situational limitations. Viewing gender as situated action on the other hand means recognizing that there are a multitude of masculinities and femininities rather than one static set of gender roles (23). In a later article, Miller and Carbone-Lopez (20) argue for the importance of "moving beyond doing gender" by focusing on how gender and other facets of social inequality intersect, and by complementing the normative aspects of doing gender with a stronger focus on the gendered organizational features of social life. In the article, they combine "doing gender" with an intersectionality approach, also investigating "doing race, class and place." They further stress the importance of focusing on how gender norms and practices are embedded within, shape and are shaped by local specific social contexts and that gender practices can be dynamic, variable and transformative (20).

In my analysis of the women's stories, I try to combine an actor's perspective–focusing on the women's motives, strategies and actions, with a structural perspective–where the focus is on how the drug economy is stratified and organized and how this affects the women's opportunities and scope for action. Although doing gender and gender inequalities have been the main theoretical focus, I also analyze and discuss how gender intersects with factors such as social situation, drug use and the degree of dependence, when this is relevant on the basis of the women's stories about taking care of business.

PASSIVE VICTIMS OR SUCCESSFUL ENTREPRENEURS?

During the 1960s and 70s the perspective on drug use gradually changed from one that perceived drug use primarily as a result of psychopathology, to one that described it more in terms of a social and cultural phenomenon (24). In their seminal article, "Taking Care of Business–The Heroin User's Life on the Street," Preble and Casey (7) challenged the perception of heroin users as weak, apathetic victims entirely controlled by the drug and using the drug as a form of escape. Instead, heroin users were described as resourceful agents making active decisions in their everyday life. However, women were absent from these representations.

Overall, little attention has been paid to women in the illegal drug economy. This is partly due to their status as a minority, but it is also a consequence of women being considered peripheral and not properly belonging to this context. Another explanation is that, historically, research on drug use has been carried out by men, focusing on men (6). The majority of literature on drug use and illegal economies either entirely ignores women or perceives them only through gender lenses, resulting in a focus on family responsibilities, motherhood, promiscuous life styles and psychopathology (8, 14).

Until relatively recently the discourse on women's drug use and the roles women play within the drug economy has been dominated by representations that reflect passivity and powerlessness (14). Studies have often described women as victims lured into drug abuse by men and as dependent on men for their livelihood and supply of drugs (25–27). In representations of men within the drug economy a number of distinct roles appear: the leader, the companion, the master, the servant, as well as the successful dealer and exploited user. By contrast, women are rarely represented in terms other than as subordinate (6). Some studies also tend to describe men's drug use as normative and embedded in masculine cultures of risk-taking and violence, and link women's drug use to deviant behavior and a failure to live up to traditional gender stereotypes and family roles (28).

During the 1990s, a number of studies were published that presented new images of women. Unlike previous studies, these adopted an actor perspective. Women in the drug economy were now also portrayed as successful and proud entrepreneurs, independent of men for their livelihoods, and capable of holding a variety of roles in the drug economy, including leading positions (11, 29, 30). Other studies described how women used "feminine attributes" such as communication skills and family resources to succeed in the drug economy (31, 32), or how women developed strategies to overcome structural barriers (8).

As early as in 1997, Maher (12) drew attention to the two opposing depictions of women in the drug economy: "the first practically denies women any agency and the second over-endows them with it". In a later meta-analysis of qualitative studies on women in the drug economy, Maher and Hudson (14) summarized the current state of knowledge. They point to both varying and, in some cases, contradictory images of women in the drug economy, but they also identify a number of common and central themes in the reviewed literature. The results show that the drug economy is generally a gender-segregated labor market where women are largely dependent on men to obtain and maintain attractive job opportunities, that women's roles often contain highly sexualized features, that women use a variety of economic and social resources from both the informal and formal sectors, but still primarily hold low and marginal positions within the drug economy (14).

Over the past decade, a number of researchers have attempted to provide a more complex and nuanced representation of women in the drug economy by combining a structural perspective with an actor's perspective and by combining a gender perspective with a focus on factors such as class and ethnicity.

In their study on women methamphetamine users in rural Missouri, USA, Miller and Carbone-Lopez (20) argues for the importance of moving beyond the primarily normative orientation in studying gender, also investigating gendered organizational features of social life including their intersections with other aspects of social inequality such as those of race, class and place. They show how particular narratives of gender–such as supermom, superwoman, and super thin–were used by the predominantly white, rural working class women to position themselves as gendered actors in culturally acceptable ways. These narratives are available and embedded within racialized cultural understandings of white womanhood. The place and social context of the study was also important in understanding the women's gender enactment and opportunities. Miller and Carbone-Lopez found that almost all of the women were involved in the production and/or selling of methamphetamine, and that only a small minority had exchanged sex for drugs. They

explain this unusually high level of female participation in market activities by the special features of the local context. The rural community, characterized by small scale and family-oriented business models as well as long-term relationships and close social bonds, worked to the women's advantage (20).

Moloney et al. (18) have investigated gang-involved young men and women engaged in illicit drug sales in San Francisco, California, focusing on their understandings and experiences of risk. They show that the drug economy involves different opportunities and risks for women and men, where discourses about femininities and masculinities and about male and female bodies shape these risks. The female body was seen as increasing vulnerability to victimization but also as providing increased opportunities to conceal drugs. The masculine street seller persona, displaying toughness and "flashiness," provided the men with respect and power but increased their likelihood of arrest. Another clear difference was that women described a greater concern about the risk of losing their children or not being able to provide for them.

In their study of women street dealers in Oslo, Norway, Grundetjern and Sandberg (15) use a Bourdieu-inspired theoretical framework of "street capital" showing how the women develop particular strategies to succeed in a drug economy that favors men. They emphasize four such strategies: desexualization, violent posture, emotional detachment and service mindedness. These strategies were used as a way of overcoming constraints due to the women's lack of embodied street capital.

In a later study of women in the Oslo drug economy, Grundetjern (33) focused on how the women enact their gendered identities: performing emphasized femininity, performing street masculinity, employing a feminine business model and flexible use of cultural repertoires. She also showed how the women's gendered performances and resources varied with sociodemographic factors such as age, time of entry into the drug economy as well as educational and employment history (33).

The vast majority of studies on women in the drug economy have been conducted in North America and Australia. The two above-mentioned studies from Norway are the only qualitative Nordic studies with a central focus on women's strategies and roles in the drug economy.

In Sweden, two quantitative studies have examined the income strategies of female drug users. The first study showed, among other things, that selling drugs was an income strategy that was equally common as selling sex, and that the women themselves bought most of the drugs they used (34). The second study showed that women with amphetamines as the main drug to a greater degree had legal/formal sources of income (wage labor, pension, social benefits), whereas a larger proportion of heroin users had illegal/informal sources of income (prostitution, dealing, theft) (35). The two studies, however, provide no in-depth insight into what roles or positions the women had in the drug economy, how they perceived their situation or what strategies they used to achieve success–something that the following study aims to explore.

MATERIALS AND METHODS

Recruitment and Interviewing

The study was part of a larger project on drug use patterns, overdose risks and income-generating activities among people who use drugs in Malmö. This article draws on conversations and in-depth qualitative interviews (36) with 27 female drug users recruited at the needle exchange program in Malmö during periods of fieldwork between 2009 and 2012.

The interviewees were recruited through a strategic selection, with the goal of gaining a sample with variation according to age, and type and length of drug use, as well as social situation. This was possible due to the interviewer being well acquainted with the study environment and as a result of continuous fieldwork. Several of the participants were known by the interviewer, as they had participated in a research study about heroin overdoses (37, 38).

The interviews were performed by the author using a thematic interview guide, but much room was left for the free narration of the interviewees. Key themes in the interviews were: the women's background, drug use history and current social situation, experiences of being a woman in a male-dominated context, different ways of obtaining drugs, views on and choices between different income strategies, perceived barriers in making careers and ways to deal with risks.

All interviews except three were carried out face-to-face at the needle exchange program in Malmö or in a nearby park; the remaining three were conducted by telephone after initial contact was made at the needle exchange program. Eight of the women have been followed over a period of several years, by shorter conversations at the needle exchange, telephone contact or multiple face-to-face interviews. The interviews varied in length between 45 and 90 min, and were all recorded and transcribed verbatim.

Ethics

The study was approved by the Regional Ethical Review Board at Lund University (ref.nr. 2006-346). All interviewees were informed about the study and its aims, as well as their right to end their participation at any time, and all gave their consent to participate in the study. Participants were offered a gift voucher worth 200 SEK (about 22 US$, 20 Euro), for each interview. To ensure the participants' confidentiality, they have been given pseudonyms in this article.

Analysis

The overall analysis has taken the form of a continuous process where themes, concepts and theoretical ideas have emerged and evolved during the whole project period.

In the analysis of the women's stories, I have used a qualitative textual analysis performed in three steps (36). The first step involved a close reading of all interviews and a summary coding based on the overarching themes in the interview guide. In the second step a more detailed coding was performed, where various patterns–similarities and differences–in relation to the original were identified. Finally, the core themes were interpreted

for meaning and suitable illustrative and representative quotes were selected.

Sample Characteristics

At the time of the interview, the women were between 20 and 63 years, with an average age of 40 years. All of the women were white, only two were born outside of Sweden, and all but one had lived most of their lives in Malmö. All interviewees were cisgender women, and none of the women talked about homo- or bisexual relationships or sexual experiences. Common to all women was that they had been injecting drugs regularly for several years and that they were part of the illegal drug scene in Malmö.

There was a variation in the group in terms of social background, extent and type of drug use, livelihood and current life situation. Fourteen of the women reported heroin as their main drug and 13 stated amphetamine as their main drug, but almost all used several different drugs on a regular bases. Most women reported daily or almost daily use of drugs, but the frequency and quantity also varied greatly over time.

The women had a variety of sources of income. Illegal and informal incomes such as drug sales, thefts, burglaries, fraud and sex sales dominated. But most women also had a formal income, mainly in the form of social benefits or disability pension. Two women had a regular part-time job during the research study period and half of the women had worked at some point in their lives.

The majority of the women had a relatively stable housing situation where they either lived in their own apartment or lived with a partner or friend. However, some of the women described a more unstable situation with temporary housing, and one woman completely lacked accommodation at the time of the interview.

RESULTS

Facing Sexism, Stigma and Patriarchal Structures

The women's stories indicated that they were resourceful players in the drug market, but that their opportunities for success were largely limited by prejudices and patriarchal structures. A recurring theme in the women's stories was the obstacles they encountered. These ranged from finding it difficult to secure drugs on credit; to being excluded from participating in burglaries and serious theft; to being offered lower prices for stolen goods while being charged higher prices for drugs; and being forced to provide sexual services in exchange for access to drugs. Several women also described how many men viewed them as easy targets to exploit, cheat or rob.

Within the context of the illegal economy, many lucrative sources of income require good networks and contacts. Those forced to work alone have limited opportunities and suffer great risk of being driven out of business. Maria, a young heroin user, said the following about the opportunity for women to become successful dealers in Malmö.

> *It is probably mainly in smaller cities that girls can deal drugs. In Malmö, this is a pretty tough business and there are already so many guys that deal and already have a lot of respect. If a gal enters that business, they will crush her because they have much better gear and better networks. They will make her stop or go bust. And if she takes a man's customers, she will definitely hear of it.*

Petra, who regularly used amphetamine, had succeeded in establishing herself as a low-level drug dealer, but still described similar experiences as Maria. Like Maria, Petra pointed out the difficulty of competing with men as they have better networks. She also said that as a woman, you get "*patronized*," "*trash talked*" and "*stigmatized as inferior*" by the men. She explained this with male dealers being the norm, and with the fact that "*the guys feel that we take some of their status away from them.*" According to Petra, the number of female high-level dealers in Malmö can be counted on one hand "*and then I cut my thumb too,*" she added.

Even though the interviewed women had managed to establish themselves as players within the illegal economy, they had to work hard, and encountered much resistance. The most difficult challenge seemed to be getting "*the entrance ticket*" and being able to "*show that you have what it takes.*" Many women described how they were forced to endure sexual harassment and how they had fought hard to break prejudices and win the trust of men in key positions in the drug economy. This is how Johanna, a 27-year-old woman with long-term amphetamine use, described the struggle to be accepted by men in the drug economy.

> *I support myself entirely by theft. Mainly copper and scaffolding, and machines. We take everything that pays off, but it can't be too small. Scaffolding is easy, being light metal. Copper is harder work, but it's a good feeling working hard for your money. Girls don't usually get to come out on these jobs, but I've been persistent as hell so they have let me join in the last two years .... I'm absolutely convinced I can go out there and work as well as anybody else. I won't put out for a fix. Not many girls do what I do. It's hard work and then you have to work with men. It's difficult to go up to the guys and say, I don't give it up for a fix, I want to do what you do. It's difficult for them to accept it. I'm accepted now but I've had to work my arse off to get to where I am. But now my word weighs as heavily as anybody else's. It has taken time but it's pretty good now. You have to be persistent, as a girl you have work twice as hard to get half as far as the men, before they understand that you are a hard worker who will dare to go as far as they do.*

The account parallels those of many other women and it clearly depicts the difficulty women encounter when trying to participate and gaining acceptance in male-dominated criminal networks. The women often encounter men that prefer to work with other men and that effectively avoid working with women since they are assumed not to be able to work as hard as men, not to be sufficiently tough, or unwilling to go as far.

Johanna's account not only shows the difficulty of gaining men's trust and respect and thus gaining access to important networks, but also reveals another recurring theme in the women's stories, the sexualized view of women within the drug economy. She described how men expected her to offer sex for drugs (*give it up for a fix*) rather than working with them. She

showed a clear pride in being able to work hard for her money under the same terms as the men. Like several of the other women, Johanna also states that using amphetamine made her able to focus and endure long working days and nights.

Josefin told me how she for several years tried to establish herself as a drug dealer, but that she eventually gave it up, because the men she bought drugs from always expected sexual services.

> *It's mostly men who deal drugs. As a girl it is mainly guys that you come across, and many guys want... they want more than you want to give, they think they should get something from you, sexually. In this way, you encounter obstacles straight away. That's the experience I have. To be a drug dealer, you have to have contacts that you can buy from cheaply. If you want to buy cheap, many men demand that you have sex with them. If you do not agree to this, you are not allowed to buy.*

For Josefin, the constant sexual harassment and the difficulty in buying drugs at reasonable prices meant that she abandoned her attempts to establish herself as a drug dealer. To fund her drug use, she instead found three regular customers to whom she sold sex. This meant that she did not have to have sex with many different and sometimes unknown men, a steadier and higher income and that she was given more room for negotiation in her sexual contacts. At the same time, she described selling sex as psychologically stressful, leading her to "numb herself" by using more heroin than before.

Another theme in several of the women's stories was the difficulty of combining the role of a mother with a criminal career. Some of the women said that they had opted out of drug dealing or other serious crime because they did not want to risk high penalties and thus lose contact with their children. Lisa, for example, said that she lived a "double life," where on the one hand she tried to work and live a "normal family life" and on the other hand she took a lot of drugs and was part of the illegal drug economy. She avoided crimes that could result in high penalties, tried to keep a low profile and hide her drug use. She explained her keeping a low profile by not wanting to risk losing her children.

> *There are many female drug users like me, who are on the borderline, who work and who take care of themselves. You do not want to lose your children. And it's not as acceptable for a woman to be a drug addict as for a man.*

According to Lisa, being a mother further reinforced the stigma of being a "drug addict," something that several previous studies have also pointed out (39–41). Other interviewed women said that as mothers, they had poorer career prospects because they were expected to stay at home with children and because they were considered a burden within criminal networks. They depicted a notion, common within the drug economy, that mothers with young children are more likely to "rat" if they are pressured by the police.

It is clear from women's stories that the drug economy in Malmö is primarily governed by men and is based on norms and values that disadvantage women. Two of the interviewed women, however, gave a partially different picture. For example, Sara told me that a growing number of women are dealing drugs, even in middle positions, and that this is gradually becoming more accepted. She compared this with what it was like for her mother and her generation of drug-using women. "*Back then, the choice was primarily between prostitution or being provided for by men.*" According to Sara, there are now more income strategies available for women.

Helen's story also stands out because she said that she did not experience any problems as a woman drug dealer. She believed that the most important thing was to create a good reputation and show suppliers up the chain that you can run the business well.

> *The top dealers don't care much about whether you are a man or a woman, they think about who they can benefit most from. I have not noticed that they have a more negative attitude toward women.*

These two stories are exceptions, but they nevertheless indicate that the drug economy is not a uniform or static market and that gender norms and practices may vary within different local contexts or networks. Even in a medium sized city like Malmö (about 325,000 inhabitants), the drug market appears to comprise several different networks, groupings and factions, with partly different cultural norms and dynamics.

Using Femininity and Sex to Gain Advantages

I did not explicitly aske the women about their sexual orientation. However, based on their rich stories, my view is that the vast majority, if not all, of the participants in the study define themselves as heterosexual women. All described relationships and sexual relations with men. None of the women talked about sexual relationships with other women and the vast majority expressed an overall heteronormative perspective on gender roles, relationships and sexuality.

Although sex and sexuality are used to exert power or to gain advantages in society at large, this seems to be even more evident within the street drug economy that the women are a part of.

Being a woman in a male-dominated and sexualized context could have its advantages. A number of women described how, in different situations, they used their femininity or sexuality to achieve different goals. This involved, for example, playing at sex in order to be offered drugs by men or getting better terms in negotiations, to stalling payments on debts using "female charm," to playing on an exaggerated or stereotypical femininity to avoid the toughest and most dangerous elements of thefts or burglaries, to achieving higher positions, more status and easier access to drugs by entering relationships with successful criminal men. Julia said that she has used several of these strategies.

> *-Is it hard to be a girl in this world?*
>
> *"Yes, but it's probably pretty damn hard to be a guy too, they have a lot to live up to. The advantage of being a girl is that you can use the fact that you're the only girl in a group, you can play stupid, even if I find it difficult. If you're out doing break-ins you can pretend that you can't do this and that. Like, if you stand in a short skirt and high heels and say–so what, I can't do it. You can avoid having to do the hardest or most dangerous things. Then you can use your sexuality in many ways. If you're the only girl you gain a lot of advantages… Then if you're smart you always try to reach the top, as a young girl you look for a guy that's at the top, who has*

it all. I often look for new contacts to do business with, and then it just happens that we get together.

In the quote, it is clear how Julia can take on different roles in different situations or contexts. She could display a special kind of femininity in the form of a helpless woman in high heels when needed. However, it is clear from her story that this was not a natural or desirable role for her to play. Later in the interview, she gave examples of when she in other contexts could be powerful, active and tough or how she, in a relationship with her only close female friend, could allow herself to be vulnerable. Most women, like Julia, seem to be able to switch between different roles and femininities, even though the patriarchal and male-dominated context implied certain constrains in most situations.

Later in the interview, Julia emphasized the importance of not becoming too dependent on men. For example, she described how she previously ended up in a very difficult situation when her boyfriend, who was a top dealer, was imprisoned. Because she relied heavily on his income, she had not built up contacts in the illegal economy of her own, or acquired sufficient knowledge to develop her own income strategies.

Like Julia, Paula said that there are opportunities to utilize one's femininity or sexuality to gain advantages. However, she also emphasized that this involves a risky game that requires a skilled balancing act. The risk of getting into dangerous situations or being exposed to sexual abuse is considerable. According to Paula and several other women, it is important to be clear about "*how far you are willing to go"* and to determine when it is time to "*stop the game*" or "*leave the scene."*

You often meet drug suppliers that are interested in you sexually. I have been in many situations where I have had an opportunity to gain advantages from being a woman. But you have your own choice. You will always find opportunities to use your sexuality to gain advantages if you want to. That's probably one of the main reasons why women don't get together and form groups and instead work individually in groups of men. You make maximum use of your femininity. Many do so consciously, other subconsciously. You have to use your assets. I think all women use them in some ways, but there are different levels, how far you're prepared to go… Some give it up [sex] *for a fix. I can use it in the sense that if I'm in debt, I can stall payments, they don't get as pissed off. You're nice to them and charm them. They may think they're getting more than what they're actually getting. Being a young, good-looking girl has its advantages, but it can also be a disadvantage. You easily end up in dangerous situations.*

Both Julia and Paula described themselves as solitary women in male networks. They use this as a strategy to "make the most of their femininity." At the same time, both said that this means a feeling of loneliness and that they, with one exception, lack close relationships with other women. Although some of the interviewed women had strong friendships and collaborations with other women, the majority primarily spent time with and did business with men.

Malin also said that she has few female friends. She explained that this is due to rivalry between women and competition for men who have status and good access to drugs.

I only have one best friend, she's a hard-core junkie. Except for her, I have no girlfriends. There is so much rivalry, so much talk about who you are with. It is a competition for the men.

The patriarchal and male-dominated drug economy seems to imply a competitive situation among many women, something that risks weakening their friendship ties and their position as a group.

In the previous quote by Paula, she emphasized that as a woman, you have your own choice about how you want to utilize your femininity and how far you are willing to go. She made it clear that she was not one of the women who *"give it up [sex] for a fix."* There was generally a negative view of women who regularly provided sex for drugs. These women generally had a low status, and where considered to contribute to a culture where men generally expect all women to be willing to offer sex in order to get access to drugs. The tendency to emphasis on the women's own choices about exchanging sex for drugs risks putting the blame for the sexualization within the drug economy on the women themselves. This is what Emilia had to say:

I've never sold sex. It's pretty usual for girls to do that though. There are even girls who do it for a fix. 'I get my fix and they get what they want'. This makes the situation 10 times harder for the rest of us. All these years, and I can count on my ten fingers those men that have not tried to get sex for drugs. It's a recurring theme. They think you're a walking orifice. Everyone that you buy from tries to exploit you in that way.

Although several women emphasized use of sexuality as a free choice, it is clear that this was far from a reality for everyone. A hierarchical and sexist drug market where men generally have an advantage in terms of networks, resources, and access to drugs, means limited income options for many women. Most of the women who provide sex to get access to drugs described this as something they were more or less forced to do.

There was however a great variation in sexual practices and attitudes toward use of sex among the women. Some women used sex as a way to make some extra money when interesting opportunities emerged or in periods when other sources of income were limited. For others, the use of sex had become their main income strategy, either by routinely having sex in exchange for drugs, by entering into a long-term sexual relationship with a top dealer or by selling sexual services on the street, at clubs, or to a few regular customers.

Regarding sexuality and sex sales, there were clear differences between the women who primarily used heroin and those who mainly used amphetamines. Most of the women using heroin had engaged in selling sex. Many stated that they really had little interest in sex and that they had few sexual contacts that did not involve payment, something they explained by the suppressive effect of heroin on sex drive or by traumatic sexual experiences. Several of the women stated that they used heroin

or benzodiazepines as a way to alleviate the anxiety and pain that the sex sales usually entailed.

In contrast, only a couple of women with amphetamine as the main drug had regularly sold sex. On the other hand, it was more common among women with amphetamines as the main drug to have many temporary sexual contacts. These contacts were sometimes made in order to gain advantages in the drug economy, but several women also said that they made sexual contact with men in the drug economy for pleasure, and that amphetamine facilitated a more lustful, intense and positive sexuality. However, two of women using amphetamine, had a different experience and did not see amphetamine as a sexual drug. One woman described how amphetamine caused her to "*lose the sensation down there*" and another woman said she "*gets numb from the waist down.*" Thus, although amphetamine was generally considered a sexual drug, there were exceptions to this notion.

At the time of the interview, Ella had been using amphetamine for over 20 years and had been active in the drug scene in Malmö for as long. She was one of the women who described the positive effects of amphetamine on her sexuality. With the help of amphetamine she could live out her sexuality and also gain many benefits.

> *I use my sexuality on a daily basis. Because it [amphetamine] is a sexual drug. Many girls have pushed their limits and felt raped afterwards, getting hurt. But I have taken care of myself. I acknowledge my sexuality and feel good about it and have a good time, but 99 percent of women in the drug world don't. I can get what I want, I can fuck for diamonds. But I only do it with those I want.*

Ella emphasized that she did not believe that her positive experiences were shared by many other women and stressed the risk of "pushing one's own boundaries" and she also brought up the constant risk of violence and sexual abuse.

Several women described how their ability to successfully make use of their sexuality or femininity, while at the same time avoiding risky situations, was largely related to their current social situation and degree of drug dependence. Severe intoxication, withdrawal symptoms or drug cravings (especially related to heroin) were, according to the women, factors that made it difficult to maintain control over potentially dangerous situations or adhere to self-set boundaries. The women who did not have their own housing, who had limited income opportunities or who had a strong dependence on their main drug, reported few possibilities to select the people they used drugs with or where to sleep, and had more limited room for negotiation in their sexual contacts.

Using Street Masculinity to Gain Respect

> *It's a very male-dominated world. They [the men] can defend themselves better and use a tougher attitude.*

The quote from Hanna above, points to a central aspect of the illegal drug economy–the importance of being able to defend oneself, to be tough and to gain respect. Several previous studies of criminal gangs, street cultures and drug economies show how men have an advantage both in terms of physical size and strength and in the form of symbolic capital of violence, since violence is associated with stereotypical masculinity (9, 42). Street masculinity is a term used to illustrate how the ability to use violence, retaliation and sexual prowess is important to establish a reputation as a "real man" and to maintain a position on the street (43).

Several of the interviewed women described how they used what can be categorized as street masculinity to gain respect. This was especially true for women who held middle or high positions in the drug economy. For some of the women, street masculinity seems to be something they had worked hard to develop or stage, while others described it as a more natural part of their repertoire or identity.

Romina, who mainly financed her heroin use by being a mid-level dealer, stated that using tough jargon and being ready to resort to violence and weapons was a necessity to gain respect and maintain her position. She said that she had always been a tough girl or a "boy girl" and that she had the benefit of growing up among five brothers. At the same time, she said that the extreme toughness she displayed in the drug economy was partly a mask that she had been forced to put on.

> *-How do you gain respect as a woman dealing drugs?*
>
> *I've had to work hard for it. But I've always been a tough person. I've had guns and shit. I've been chasing guys with a gun and doing all sorts of crazy stuff out there. I have five brothers so I have learned to be tough. I have never been afraid to fight with guys. I've been through a lot. My life would make a damn good book … There are some girls who are kind and easily deceived, and the men immediately think that they can rob her or beat her. Then there are girls who are tough, who can handle themselves, who set boundaries, who say - if you have money you can get some (drugs), if you don't you can go fuck yourself. You have to be tough to survive. You have to put on a mask, a facade, that's why you can eventually forget who you are, what kind of person you really are.*

The quote summarizes some of the characteristics that are often identified as central to survival in street drug economies: toughness, use of weapons and violence, and the importance of gaining respect. Romina contrasts this with the image of some women who are kind, naive and therefore easy to exploit, rob or beat. For her, it is important to show others in the drug economy that she is not one of the "weak girls." But as a woman, she has more to prove, she has to be tougher than the men to get the same respect. Romina almost exclusively socialized with men. She described a strong affiliation with the men in the drug economy and identified herself to a greater extent as "*one of the guys*" (23).

Susanna, who supported herself through drug dealing and selling stolen goods, also said she received respect by being cocky and tough and by showing readiness to resort to violence. At the beginning of her career, Susanna often experienced threats, robberies, and sexual harassment. In the end, she realized that she had to set an example in order to be able to continue running her business.

It has happened that people have come to my home and robbed me. But once there was a guy who didn't get what he wanted, he jumped me, but I had a knife, so I stuck it in his back. A rumor spread around town. I would have done the same today. You should never agree to something you don't want.

After this incident, Susanna gained a reputation as a potentially dangerous person who did not fear resorting to violence. This led to her experiencing less harassment. Susanna also described how she gradually changed her jargon and her way of dressing to display a tougher appearance. She said she now plays down her femininity, avoids makeup and often dresses in jeans, t-shirt and leather jacket.

Ellinor, who was a high-level dealer, talked about another central code of the street in the drug economy, the importance of not being "a rat." She believed that there is a notion that women, especially women with children, pose a greater risk in criminal businesses in this regard. According to her, mothers are seen as more likely to rat to the police and as more easily threatened or blackmailed by other dealers because "*they think of their children in the first place.*" Ellinor told me that she chose prison instead of her daughter to show that she was not "a rat." This meant that she could gain respect and maintain a high position as a dealer even after her prison sentence ended.

... I had to make that choice and I still stick with it, but I lost my daughter because I kept quiet. They found fingerprints, I could have revealed him and escaped punishment and kept my daughter, but I chose not to tell them whose fingerprints they were. I've been in prison four times without saying anything. It has been difficult to get respect as a female drug dealer. If I had been a guy, everything would have been much easier. But in the end you get respected when they see that you don't talk, and that you don't give in to pressure.

It is clear that Ellinor, as a woman, had more to prove in relation to her male colleagues. She had to sacrifice more and "go further" in order to get the same respect. She also declared that she, like her male colleagues, generally saw women with children as a greater risk and therefore avoided doing business with them. Few women, according to her, would make the same choices and sacrifices that she has made.

For Romina and Ellinor, as well as for many other women, enacting street masculinity means both pros and cons. The benefits are primarily about winning respect, feeling strong and achieving success in business. The disadvantages mainly concern the risk of "split identity" and loss of relations. Displaying toughness and aggressiveness can be stressful, especially if this is not in line with one's personality or identity. Romina exemplified this when she described how she "put on a mask" and thus risked forgetting who she really was. Other disadvantages that several women addressed were about sacrificing friendships or close relationships, where one extreme example is Ellinor's choice to lose contact with her daughter by not "being a rat."

Petra described another possible drawback. For her, the display of extreme toughness affected her sense of femininity and the opportunity to start relationships with men.

We usually have a saying that: the guy must be one level worse than the girl for her to like him. If you are as extreme as me and some other women, it is difficult to find guys. You have to find an extreme guy who is worse than me when it comes to crime and stuff, in order for me to feel feminine. That is what it's all about.

Common to Romina, Ellinor and Petra was that they held middle or high positions in the drug economy and that they used street masculinity as a main strategy.

Establishing Trust, Being Professional, and Keeping a Low Profile–An Alternative to Street Masculinity

Far from all the interviewed women were able or willing to display street masculinity. Some stated that they "lacked what it takes," others believed that there were better strategies for gaining respect and managing business in the drug economy than radiating danger, physical strength and aggressiveness. The women defined a number of such successful strategies, including: to be honest, fair and explicit in business; to deliver what one promised in terms of quality and price; to keep track of your finances and your own drug use; being attentive to customer needs; building trustful relationships with customers and business partners; and keeping a low profile rather than being "cocky" and "brash."

Monica supported herself primarily through selling stolen goods and dealing amphetamines. She said she had gained a good reputation, respect and good customer relationships by being just and by selling stolen gods and drugs at reasonable prices.

You have to make people respect you, not that I'm violent or anything, but I have always been straight and fair, you know, with everyone, it doesn't matter who they are and if they want to buy only a gram that's cool too. Many guys, in particular, can get a bit cocky, they're just hard work, saying they won't sell for less than 500 (50€). They get more interesting that way, girls flock around them. But it's only because of the bag of drugs, not because of them, but they suppress all that and think of themselves as top dogs. Most guys are like that, but many of them also fall flat to the ground… If you're fair you manage better, you may get robbed anyway, but most of the time that happens to nasty people, those that are brash and mean to people and cocky just because they walk around with a big bag of drugs. Some people get annoyed when they walk around thinking they're top dogs: it can backfire. People who are treated badly or that are jealous are also more likely to rat on you.

Having satisfied customers and avoiding annoying people are, according to Monica, important ways to reduce the risk of violent conflicts and of being "exposed to the police." Given the fact that violent conflicts and police interventions are two of the major threats to activities and incomes in the criminal world, these seem to be important strategies.

Another way of keeping a low profile and avoiding risks used was to dress and act "gender neutral." This has similarities to what Grundetjern and Sandberg (15) call desexualization and to Deutsch's (44) concept of "undoing gender." In this case it means neither enacting street masculinity nor using sex or enhanced femininity. According to several women's stories, neutral clothing

and a calm attitude reduced the risk of attention, conflict and police intervention compared to street masculinity's flashiness and cocky jargon (compare, 32). To downplay femininity and avoid playing on sex can, according to some women, increase the chance of being respected in the business, while at the same time reducing the risk of sexual harassment and abuse.

Several women said that they were generally less likely than men to be arrested by the police. They explained this with them not being seen as dangerous or criminal to the same extent as their male colleagues. In addition to keeping a low profile, some women described more elaborate strategies to reduce the risk of being arrested by the police. Lisa, who was dealing heroin, told me that she sometimes went down to the red-light district and showed herself to the cops *so "they wouldn't suspect anything else."* Since sex sales are not criminalized in Sweden (but sex purchases are) it meant less risk to her if the police thought she was selling sex rather than dealing drugs, something that can result in long prison sentences.

Most women emphasized the importance of creating and maintaining good and trustful relationships with other people in the drug economy. All the women were dependent on continuous and secure access to drugs, and most did daily business with others in the form of dealing drugs, selling stolen goods or collaborating on theft or burglary. Drug economies are often depicted as fierce and ruthless arenas characterized by competition and lack of solidarity. Based on the women's stories there is evidence that speaks both for and against this notion. Expressions such as "*you can't trust anyone*" and "*it's about eating or being eaten,*" clearly speak for lack of solidarity and trust. At the same time, several women also gave examples of good collaborations and close relationships.

A few women collaborated with other women, either around sex selling or dealing drugs, some describing this at a kind of "sisterhood." However, it was far more common among the women to have male business partners. Some women worked with a man who they lived with, others did errands for men higher up in the hierarchy, and two of the women stated that they themselves employed men to do errands for them. Business partners provided access to important contacts and networks, acted as a backup if the business went bad, and provided security reducing the risk of being robbed or exploited.

Drug dealing, in particular, seemed to require good networks and stable relationships. It was important to establish cooperation with one or more top level dealer for a continuous supply of drugs at a good price, and to build a loyal and secure clientele. Gaining a reputation of being reliable at all levels of the distribution chain was described as crucial. When I asked Ylva what she thought were the most important qualifications for gaining a good reputation and becoming a successful dealer, she answered:

> *That you have a good supplier. That you do the right thing, and that you always pay your supplier. That you keep a good price and that you always have access to good quality drugs. To keep away from the cops … Being reliable in business is the most important thing, and also being selective with whom you do business with.*

Ylva went on to say that she only sold drugs to a small group of people with whom she had a close relationship, and that she only let people she trusted into her apartment. She refrained from dealing to customers who she perceived as threatening or uncertain, and avoided competing with other dealers about customers. Ylva, like several other women, pointed out that the most important thing was to keep on good terms with their main supplier.

It was common, as Ylva did, to receive drugs on credit which you then sold, repaying the debt with part of the profit. Like all the other women interviewed, Ylva used drugs herself. This can entail a risk in the form of using some of the drugs you plan to sell and thus having difficulty repaying the debt or credit to the main supplier.

One of the most difficult challenges, according to the women who dealt drugs, was not to adjust the consumption to the quantity of drugs in possession. Especially those who both used and sold heroin described it as difficult not to increase their dose and not to "*get high on your own supply.*" This was particularly difficult when the business was bad or during periods with psychological distress or severe cravings or withdrawal symptoms.

Some women said that they managed to control their drug use by setting clear rules for how much they would use, with whom and where. Others said that they conducted their drug sales in the form of a *"professional and regular business,"* with accounting and clear rules and procedures. However, most of the women said that at some point they had lost control over their consumption, which meant that they had to dilute the drugs they sold too much or that they missed payments up the chain. This could lead to a bad reputation and increase the risk of sanctions, something that forced some of the women to periodically abandon drug dealing for other income strategies such as sex sales, fraud or theft.

Several of the women described themselves as professional and successful entrepreneurs and compared their illegal activities with *"regular jobs or businesses."* According to Lisa, successful drug dealing requires similar qualifications as many other professions where one must be *"ambitious, cooperative, straightforward, honest, strong, and stand up for what you believe in."* Other important capabilities and norms that the women emphasized were being responsive to customer needs, always delivering what you promise, and practicing an ethical cod of not selling to minors or people not involved in the drug economy. Most women showed great pride in being self-sufficient and working hard for their money.

DISCUSSION

The interviewed women had all established themselves as entrepreneurs in the local drug economy. They bought most of the drugs they used, and they worked hard for their money. The results differ from those of early studies on women in the drug economy that portray them as highly marginalized or passive victims, dependent on men for their livelihood and access to drugs (25–27, 45).

Similar to a number of more recent studies, the results show that it is possible for women to find their own income strategies and become relatively independent and successful entrepreneurs in illegal drug economies (6, 15, 20). At the same time, only a few of the interviewed women held middle or high positions, and all the women said that they encountered obstacles and challenges in their efforts to take care of business and make careers in the drug economy (compare, 14). Many of these obstacles had to do with being a woman in a male-dominated context.

The street level drug economy in Malmö, like many other illegal economies, appears to be male-dominated, patriarchal and strongly sexualized (9, 14, 15). The women said that they were generally considered less tough and easier to rob, and that they were seen as inferior business partners in comparison to men. Women's limited opportunities in illegal economies have previously been explained by institutionalized sexism (12, 16, 42, 46). This sexism appears primarily in "homosocial reproduction," "sex typing" and the "task environment of crime" (16). Male criminals prefer to work and do business with other men, meaning that men who occupy leading positions subsequently tend to place other men in significant positions (homosocial reproduction). Male criminals are less prone to work with or do business with women as they are seen to lack the physical and psychological attributes (sex-typing) that are required when working in an instable and violent context (task environment of crime) (16). The women in Malmö clearly experienced institutionalized sexism, and also encountered a sexualized view according to which they were expected to provide sexual services for access to drugs, something that has been described in an earlier study on the Malmö drug scene (34).

The fact that the drug economy was patriarchal and sexualized meant special prerequisites for the women's income strategies and gender enactments. The women's stories must also be understood in the light of the fact that they are cisgender women, all having sexual relationships with men. The overall heteronormative views on gender roles and sexuality held by the women may thus be related to their gender identities and sexuality, as well as to context specific features of the drug economy.

Three main strategies were distinguished in the women's stories: *using femininity and sexuality*, proving tough and dangerous by *using street masculinity*, and a third strategy that involved *establishing trust, being professional, and keeping a low profile*. Some of the women combined different strategies or switched strategy depending on context, while others mainly stuck to one. The three strategies should not be seen as fixed, inseparable or as the only possible ones. Rather, they should be considered as three typical strategies common among the women interviewed.

The three strategies were associated with different types of risks, advantages and disadvantages. Using sexuality and sex enabled relationships with men in high positions in the drug economy, improved access to money and drugs, and made it possible to avoid having to do the most dangerous jobs. Thus, there could be some benefits to being a woman in a male-dominated context. At the same time, using sex could, according to the women, involve increased risks of sexual abuse, less respect and a lower social status. Sexual harassment and abuse appeared to be normalized to some extent–something you can expect to be exposed to as a woman in the drug economy. Using sex as a main strategy also seemed to be associated with greater loneliness–this made it hard to be "one of the guys" and at the same time limited the opportunities for close friendships with other women, due to bad reputation or competition for men. Grundetjern (33) has used the concept of emphasized femininity to show how some female dealers in Oslo's drug economy played on their femininity to gain advantages. For the women in Oslo as well as for the women in this study, strategies linked to sexuality were associated with the risk of victimization and marginalization. Although many women used femininity and sex in a strategy to gain advantages, some also described sex with men in the drug economy as part of a voluntary and positive sexuality. Others were strongly critical of strategies related to sex, since they believed it increased the sexualization of all women in the drug economy. It is clear that gender enactments, in this respect, are a response to gendered social hierarchies and expectations, but that they can also reproduce and reinforce them (21).

Display of street masculinity was especially important for the women who occupied relatively high or central positions in the drug economy–those who had many contacts and did business where large amounts of money or drugs were involved. There have been similar findings in other studies of drug economies (15, 33), and toughness and readiness for violence has been described as a central part of the "code of the street" and as crucial to holding high positions within criminal street environments (47). The main benefits of using street masculinity seem to be about gaining respect and reducing the risk of being robbed or out-competed (43). Disadvantages can, according to some women, be about a "split identity," difficulties in finding a male partner to start a love relationship with, and being forced to "sacrifice close relationships" for the criminal career. For some of the women, the display of street masculinity was somewhat natural. Others said this was a "mask they were forced to put on" in certain situations or contexts. For most women, street masculinity was not an option, as they considered themselves "lacking what it takes," felt that it is was not worth the risks, or believed there were better strategies to achieve success. A study by McNeil et al. (10) showed that not only women, but also marginal men who cannot occupy dominant roles due to age, disability, or health status are exposed to violence and subordination due to a hegemonic form of masculinity within street-based drug scenes (10).

Enacting street masculinity seems to be especially difficult to combine with motherhood. Being a mother can, according to several women, mean that you are expected to take care of the household and family. Motherhood can also entail an increased stigma and condemnation in relation to drug use and illegal activities as well as being considered as a risk or burden within criminal networks (48, 49). Grundetjern's (49) study on motherhood among women dealers in Norway showed that the women took on different maternal identities in relation to the timing off pregnancy, time spent with children, control of drug use, and place in the drug market hierarchy. Despite many challenges, some mothers described being able to successfully combine motherhood and dealing (49).

The third strategy, which includes establishing trust, being professional, and keeping a low profile, seems to reduce the risk of police interventions, conflicts and exposure to sexual harassment and abuse. Several of the women who used this strategy showed pride in working hard for their money, without having to sell sex or use violence, and compared their business to regular work or to being a "legitimate entrepreneur." At the same time, it seems difficult to achieve higher positions in the drug economy without also being able to display street masculinity.

The fact that women in illegal economies use a business model based on relationships and service mindedness has been noted in several previous studies. Grundetjern (33) showed how women dealers in Oslo use what she called a "feminine business model," playing on the dominant views of femininity and using care, sociability and service mindedness to gain trust. Other studies describe how successful women in the drug economy use a business ethics based on trust, fairness and efficiency, as an alternative to violence and domination (6, 11, 50). Anderson (13) even argues that men's structural sources of power in the drug market are dependent on women's roles, relational skills and power.

Although the drug economy in Malmö is generally male-dominated, there appear to be local variations and also mobility over time. Even though Malmö is a relatively small city, the drug economy seems to be made up of a number of different networks and many relatively independent actors. Several women conducted their own business independently of large criminal networks and some stated that far from all criminal men have negative attitudes toward women.

The local context and the structure and character of the drug economy have previously been shown to influence women's opportunities and roles (51). Drug economies based on small-scale or more family-oriented business models as well as on long-term relationships have been shown to work to women's advantage, resulting in a high level of female participation in market activities (20). Drug economies in Nordic countries are usually composed of small and flexible networks, with fewer large or mafia-like criminal organizations (52), which seems to be in line with the drug scene in Malmö. This could be one explanation for the fact that women in Nordic cities such as Malmö and Oslo (33) appear to have active roles and relatively good opportunities for success in the drug economy. By contrast, large, concentrated drug scenes seem to pose great risks and offer less opportunity for women, as well as for marginalized men (10).

It is clear that gender norms and gender enactments are important for the interviewed women's opportunities to take care of business. At the same time, the women's stories show that a number of other factors and circumstances also have an impact on their opportunities and risks. This points to the importance of not focusing solely on gender norms or patriarchal structures (20). For instance, factors such as social context, class, ethnicity, age and type of drug market have been shown to influence the opportunities, risks and positions of women in drug economies (51).

For the women in this study, the type of drug used, and the degree of drug dependence, was decisive for their social situation, income strategies, sexuality and risk exposure. About half of the women interviewed stated that heroin was their main drug and about half primarily used amphetamines. These are the two most commonly used drugs among people who inject drug in Sweden (2). In previous studies, heroin use has been associated with stronger dependence, higher financial costs, more illegal income strategies, sex selling, and greater social marginalization compared to amphetamine use (2, 53). These differences also appear to be true for the women in this study. More women with heroin as the main drug described problems and loss of control of their drug use and a difficult social situation. This is something that can involve difficulties in maintaining a regular job and handling illegal businesses that require planning and control, such as dealing or large-scale theft. Studies have shown that those who cannot control their drug use face major problems in pursuing a career in the drug economy (6, 11) and that the highest positions are often held by those who do not themselves use drugs to any great extent (42).

For a few women mainly using heroin, a difficult social situation combined with severe drug addiction and withdrawal symptoms resulted in short-term perspectives and temporary solutions focusing on attaining enough money for the next fix. For this group, supply strategies were reduced to shoplifting, selling sex on the street or offering sex for drugs, leading to a life situation characterized by great vulnerability and risk. Sex sales can, according to several women's stories, lead to a negative spiral where you sell sex to get money for heroin and use more heroin to deal with pain and psychological stress associated with sex sales.

It was more common among women amphetamine users to describe a relatively stable social situation and a greater opportunity to choose between different sources of income. Amphetamine was also used by some of the women to help them endure long and hard working days. Fewer women using amphetamine regularly sold sex. At the same time, it was more common for women who mainly used amphetamine to have temporary sexual contacts with men in the drug world, both as a strategy to gain advantages, but also as part of a positive sexuality. The differences in sexuality between women using heroin and women using amphetamine can partly be explained by the fact that amphetamine is a sexual drug that can eliminate sexual inhibition, increase sexual desire, pleasure and stamina (54, 55), whereas heroin and other opioids rarely are associated with a positive sexuality (56).

It is clear from the woman's stories that the type of drug used, the different functions of the drug, as well as the degree of drug dependence play an important role for their everyday life and risks as well as for their positions and success within the drug economy. This is something that has received relatively little attention in research, and which therefore needs to be explored in more depth in future research.

The women's stories show how they are restrained by gender norms and structures, how they use them to their advantage and how in some cases they also contribute to maintaining and reproduce them. Their stories also provide examples of resistance to sexism and to stereotypical and negative perceptions of female drug users, and how they use and move between multiple femininities or masculinity to achieve success.

Some of the stories stand out and provide more alternative images of the drug economy and of women who use drugs. They show, for example, that gender is not always decisive to women's opportunities and that far from all men in the drug economy hold negative or prejudiced views of women, that it is possible as a woman to be successful and reach high positions in a male-dominated and criminal context, that multiple sexual relationships under the influence of drugs do not necessarily have to be destructive or harmful, the possibility to combine a family- and working life with regular injection drug use, and that it is possible to engage in criminal activities such as drug dealing based on ethical codes and a sense of pride.

CONCLUSIONS

It is possible for women to establish themselves as successful entrepreneurs in male-dominated drug economies, but this is associated with major obstacles and risks that are highly gendered. Displaying toughness and street masculinity has been presented as crucial for success in street level drug economies. The women's stories indicate that this is only one of many possible strategies for achieving respect and success. Establishing trust, being professional, and keeping a low profile, can in some contexts and situations, be a better strategy than "being cocky" or using violence. Using sex or playing on sexuality can open opportunities for women in male-dominated contexts, but this can also involve increased risks of sexual abuse and a lower social status.

Similar to a number of previous studies, the results show that gendered social hierarchies, structures and norms are of great importance for women's gender enactments, opportunities and risks in drug economies. At the same time, the results point to the importance of also focusing on other factors. The person's drug of choice, degree of drug dependence and social situation can in many cases be of great significance for risks and the possibility of taking care of business. The results also indicate that drug economies and gender norms can rarely be understood as static or uniform. Drug economies based on small scale business models seem to be more flexible and heterogeneous, meaning they offer greater opportunities for women to succeed in business.

LIMITATIONS

The study is based on interviews with a highly selected group of women–women with long-term injection use of heroin or amphetamine–within a specific context. This means that the results cannot be generalized to women's roles, opportunities or vulnerabilities in drug economies in general. However, there are a number of themes in the results that show great similarities with those presented in several previous studies. This indicates the possibility of a certain thematic or theoretical generalizability. Nevertheless, the results must always be understood based on the specific features of the local context.

The group of women included in the study is in some respects homogeneous. The women were all white, and all but two were born in Sweden. This means that questions relating to having an ethnic minority position, and how this may affect women's experiences and opportunities have not been made visible. All interviewees were cisgender women, and none of the women talked about homo- or bisexual relationships or sexual experiences. This is one explanation for the relatively dichotomous and heteronormative views on sexuality and gender roles in the women's narratives, and for the lack of a queer or transgender perspective in the study. A main focus in the interviews and analysis was on gender hierarchies and gender enactments. Although a certain focus was also directed toward the type of drug used, the degree of dependence as well as the women's social situation, other important aspects of their everyday lives may have been overshadowed.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Regional Ethical Review Board at Lund University (ref.nr. 2006-346). The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

TR is the sole author of the article, conducted all interviews, transcribed them and conducted the analyses, and also wrote the first draft, as well as the final manuscript.

ACKNOWLEDGMENTS

I would like to thank all participants who took part in the study, sharing their personal experiences and knowledge. I would also like to thank the staff at the needle exchange program in Malmö for supporting me in the recruitment–and interviewing process. I would also like to thank my colleagues at the Department of Social Work, Malmö University, for giving comments on the first manuscript draft.

REFERENCES

1. Bretteville-Jensen AL, Sutton M. The income-generating behaviour of injecting drug-users in Oslo. *Addiction.* (1996) 91:63–79. doi: 10.1046/j.1360-0443.1996.911639.x
2. Richert T. *Överdoser, försörjningsstrategier och riskhantering: Livsvillkor för personer som injicerar narkotika [Overdoses, income strategies and risk handling: Living conditions for people who inject illegal drugs].* Malmö University (2014).
3. Rosenbaum M. *Women on Heroin.* New Brunswick, NJ: Rutgers University Press (1981).

4. Jaffe K, Nosova E, Maher L, Hayashi K, Milloy MJ. & Richardson L. Income generation and the patterning of substance use: a gender-based analysis. *Drug Alcohol Depend.* (2021) 226:108862. doi: 10.1016/j.drugalcdep.2021.108862
5. Boyd J, Richardson L, Anderson S, Kerr T, Small W, McNeil R. Transitions in income generation among marginalized people who use drugs: a qualitative study on recycling and vulnerability to violence. *Int J Drug Policy.* (2018) 59:36–43. doi: 10.1016/j.drugpo.2018.06.014
6. Denton B. *Dealing: Women in the Drug Economy*. Sydney: University of New South Wales Press (2001).
7. Preble E, Casey JJ. Taking care of business—the heroin user's life on the street. *Int J Addict.* (1969) 4:1–24. doi: 10.3109/10826086909061998
8. Taylor A. *Women Drug Users: An Ethnography of a Female Injecting Community*. Oxford: Oxford University Press (1993).
9. Sandberg S, Pedersen W. *Street Capital: Black Cannabis Dealers in a White Welfare State.* Policy Press (2011). doi: 10.1332/policypress/9781847421203.001.0001
10. McNeil R, Shannon K, Shaver L, Kerr T, Small W. Negotiating place and gendered violence in Canada's largest open drug scene. *Int J Drug Policy.* (2014) 25:608–15. doi: 10.1016/j.drugpo.2013.11.006
11. Morgan P, Joe KA. Citizens and outlaws: the private lives and public lifestyles of women in the illicit drug economy. *J Drug Issue.* (1996) 26:125–42. doi: 10.1177/002204269602600108
12. Maher L. *Sexed Work: Gender, Race and Resistance in a Brooklyn Drug Market*. Oxford: Oxford University Press (1997).
13. Anderson TL. Dimensions of women's power in the illicit drug economy. *Theor Criminol.* (2005) 9:371–400. doi: 10.1177/1362480605057725
14. Maher L, Hudson SL. Women in the drug economy: a metasynthesis of the qualitative literature. *J Drug Issue.* (2007) 37:805–26. doi: 10.1177/002204260703700404
15. Grundetjern H, Sandberg S. Dealing with a gendered economy: female drug dealers and street capital. *Eur J Criminol.* (2012) 9:621–35. doi: 10.1177/1477370812453103
16. Steffensmeier DJ. Organizational properties and sex-segregation in the underworld: Building a sociological theory of sex differences in crime. *Soc Forces.* (1983) 61:1010–32. doi: 10.2307/2578276
17. Coomber R, Maher L. Street-level drug market activity in Sydney's primary heroin markets: organization, adulteration practices, pricing, marketing and violence. *J Drug Issue.* (2006) 36:719–53. doi: 10.1177/002204260603600310
18. Moloney M, Hunt G, Joe-Laidler K. Drug sales, gender, and risk: Notions of risk from the perspective of gang-involved young adults. *Subst Use Misuse.* (2015) 50:721–32. doi: 10.3109/10826084.2015.978642
19. Ludwick MD, Murphy S, Sales P. Savvy sellers: dealing drugs, doing gender, and doing difference. *Subst Use Misuse.* (2015) 50:708–20. doi: 10.3109/10826084.2015.978640
20. Miller J, Carbone-Lopez K. Beyond 'doing gender': incorporating race, class, place, and life transitions into feminist drug research. *Subst Use Misuse.* (2015) 50:693–707. doi: 10.3109/10826084.2015.978646
21. West C, Zimmerman DH. Doing gender. *Gender Soc.* (1987) 1:125–51. doi: 10.1177/0891243287001002002
22. West C, Zimmerman D H. Accounting for doing gender. *Gender Soc.* (2009) 23:112–22. doi: 10.1177/0891243208326529
23. Miller J. The strengths and limits of 'doing gender' for understanding street crime. *Theor Criminol.* (2002) 6:433–60. doi: 10.1177/136248060200600403
24. Agar M. *Ripping and Running*. New York, NY: Seminar (1973).
25. Fiddle S. Sequences in addiction. *Addict Dis.* (1976) 2:553–67.
26. File KN. Sex roles and street roles. *Int J Addict.* (1976) 11:263–8. doi: 10.3109/10826087609058798
27. Ruggiero V. Drug economics: a fordist model of criminal capital? *Capital Class.* (1995) 19:131–50. doi: 10.1177/030981689505500106
28. Campbell N. *Using Women: Gender, Drug Policy, and Social Justice*. New York, NY: Routledge (2000).
29. Mieczkowski T. The experiences of women who sell crack: Some descriptive data from the Detroit crack ethnography project. *J Drug Issues.* (1994) 24:227–48. doi: 10.1177/002204269402400203
30. Baskin D, Sommers I, Fagan J. The political economy of female violent street crime. *Fordham Urb L J.* (1992) 20:401.
31. Dunlap E, Johnson BD. Family and human resources in the development of a female crack-seller career: case study of a hidden population. *J Drug Issue.* (1996) 26:175–98. doi: 10.1177/002204269602600110
32. Jacobs BA, Miller J. Crack dealing, gender, and arrest avoidance. *Soc Probl.* (1998) 45:550–69. doi: 10.2307/3097212
33. Grundetjern H. Women's gender performances and cultural heterogeneity in the illegal drug economy. *Criminology.* (2015) 53:253–79. doi: 10.1111/1745-9125.12068
34. Richert T. Injection drug using women and the means by which they support their drug use [Injektionsmissbrukande kvinnors inkomstkällor och anskaffning av droger]. *Nordic Stud Alcohol Drug.* (2009) 26:365–83. doi: 10.1177/145507250802600515
35. Richert T, Månsson SA, Laanemets L. Kvinnor som injicerar heroin respektive amfetamin-Skillnader i social situation, erfarenhet av behandling och önskemål om hjälp [Women who inject heroin and amphetamine respectively – Differences in social situation, experience of treatment and requests for help]. *Socialvetenskaplig Tidskrift.* (2011) 18:144–64. doi: 10.3384/SVT.2011.18.2.2468
36. Kvale S, Brinkman S. *Interviews: Learning the Craft of Qualitative Research Interviewing.* Los Angeles, CA: SAGE Publications (2009).
37. Richert T, Svensson B. Med livet som insats: injektionsmissbruk, risktagande och överdoser [Gambling with life: injecting drug use, risk-taking and overdoses]. *Nordisk Alkohol Narkotikatidskrift.* (2008) 25:355–76. doi: 10.1177/145507250802500504
38. Richert T. Wasted, overdosed, or beyond saving–to act or not to act? heroin users' views, assessments, and responses to witnessed overdoses in Malmö, Sweden. *Int J Drug Policy.* (2015) 26:92–9. doi: 10.1016/j.drugpo.2014.07.006
39. Murphy S, Rosenbaum M. *Pregnant Women on Drugs: Combating Stereotypes and Stigma.* New Brunswick: Rutgers University Press (1999).
40. Ettorre E. *Revisioning Women and Drug Use*. Gordonsville, VA: Palgrave Macmillan (2016).
41. Boeri M, Lamonica AK, Turner JM, Parker A, Murphy G, Boccone C. Barriers and motivators to opioid treatment among suburban women who are pregnant and mothers in caregiver roles. *Front Psychol.* (2021) 12:688429. doi: 10.3389/fpsyg.2021.688429
42. Bourgois P. *In Search of Respect: Selling Crack in El Barrio*. Cambridge: Cambridge University Press (2003). doi: 10.1017/CBO9780511808562
43. Mullins CW, Cardwell-Mullins RM. Bad ass or punk ass?: the contours of street masculinity. *Univ J Res Scholar Creat Activ.* (2006) 2:1–17.
44. Deutsch FM. Undoing gender. *Gender Soc.* (2007) 21:106–27. doi: 10.1177/0891243206293577
45. Adler PA. *Wheeling and Dealing*. Columbia University Press (1993). doi: 10.7312/adle94604
46. Steffensmeier DJ, Terry RM. Institutional sexism in the underworld: a view from the inside. *Sociol Inquiry.* (1986) 56:304–23. doi: 10.1111/j.1475-682X.1986.tb00090.x
47. Anderson E. *Code of the Street: Decency, Violence, and the Moral Life of the Inner City*. New York, NY: WW Norton & Company (2000).
48. Lee N, Boeri M. Managing stigma: women drug users and recovery services. *Fusio.* (2017) 1:65-94.
49. Grundetjern H. Negotiating motherhood: Variations of maternal identities among women in the illegal drug economy. *Gender Soc.* (2018) 32:395–416. doi: 10.1177/0891243218759006
50. Hutton F. Risky business: gender, drug dealing and risk. *Addict Res Theory.* (2005) 13:545–54. doi: 10.1080/16066350500338237
51. Sterk C. *Fast Lives: Women Who Use Crack Cocaine*. Philadelphia, PA: Temple University Press (1999).
52. Korsell L, Larsson P. Organized crime the Nordic way. *Crime Justice.* (2011) 40:519–54. doi: 10.1086/660917
53. Hser YI, Huang D, Brecht ML, Li L, Evans E. Contrasting trajectories of heroin, cocaine, and methamphetamine use. *J Addict Dis.* (2008) 27:13–21. doi: 10.1080/10550880802122554
54. Lorvick J, Bourgois P, Wenger LD, Arreola SG, Lutnick A, Wechsberg WM, et al. Sexual pleasure and sexual risk among women who use methamphetamine: a mixed methods study. *Int J Drug Policy.* (2012) 23:385–92. doi: 10.1016/j.drugpo.2012.07.005

55. Skårner A, Månsson SA. & Svensson B. 'Better safe than sorry': Women's stories of sex and intimate relationships on the path out of drug abuse. *Sexualities.* (2017) 20:324–43. doi: 10.1177/1363460716665782
56. Rawson RA, Washton A, Domier CP, Reiber C. Drugs and sexual effects: role of drug type and gender. *J Subst Abuse Treat.* (2002) 22:103–8. doi: 10.1016/S0740-5472(01)00215-X

Conflict of Interest: The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 17 May 2022
doi: 10.3389/fpsyt.2022.890784

Paying Attention to Women's Ageing Bodies in Recovery From Substance Use

April Shaw[1]*, *Gerda Reith*[2] and *Lucy Pickering*[2]

[1] National Addiction Centre, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, United Kingdom, [2] School of Social and Political Sciences, College of Social Sciences, University of Glasgow, Glasgow, United Kingdom

Background: Health-related research on women who use drugs (WWUD) tends to focus on reproductive and sexual health and treatment. Missing from the picture is an exploration of mid-life and older women's bodily experiences of transitioning from long-term substance use into recovery. While there are a growing number of studies that explore the intersection of drug use and ageing, the gaps in analysis lie in the intersections between drug use, recovery, ageing, gender, and the body.

Methods: In-depth qualitative interviews were undertaken with 19 women in the UK who self-identified as "in recovery" from illicit drug use. The interviews were transcribed verbatim and analysed using Braun and Clarke's thematic analysis techniques. The study received ethical approval from the University of Glasgow.

Results: Key findings from the interviews relate to the women's personal sense of power in relation to current and future health status, the challenges they endured in terms of ageing in recovery and transitioning through the reproductive life cycle, and the somatic effects of trauma on women's recovery. The findings demonstrate that health in recovery involves more than abstinence from drugs.

Discussion: Moving from the body in active drug use to the body in recovery is not without its challenges for mid-life and older women. New sensations and feelings—physical and mental—must be re-interpreted in light of their ageing and drug-free bodies. This study reveals some of the substantive sex-based differences that older women in active drug use and recovery experience. This has important implications for healthcare and treatment for women in drug services and women with histories of drug use more generally.

Keywords: mid-life and older women, substance use, ageing, bodies, recovery, health, menopause

OPEN ACCESS

Edited by:
Anette Skårner,
University of Gothenburg, Sweden

Reviewed by:
Elisabeth Punzi,
University of Gothenburg, Sweden
Giovanna Ricci,
University of Camerino, Italy
Siddharth Sarkar,
All India Institute of Medical Sciences, India

***Correspondence:**
April Shaw
ashaw419@gmail.com

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: *06 March 2022*
Accepted: *11 April 2022*
Published: *17 May 2022*

Citation:
Shaw A, Reith G and Pickering L (2022) Paying Attention to Women's Ageing Bodies in Recovery From Substance Use. Front. Psychiatry 13:890784. doi: 10.3389/fpsyt.2022.890784

INTRODUCTION

An androcentric approach to health has been prevalent within medical research and this is particularly true of substance use research (1). A particularly neglected research area in the field of substance use relates to the bodily and embodied experiences of mid-life and older women in recovery from illicit drug use. This paper's aim is to pay attention to the voices of women ageing into recovery and provide a deeper understanding of their experiences of drug-free and ageing bodies.

This paper specifically focuses on women's experiences of *bodily recovery* from unmanageable substance use.

As the body ages its ability to process drugs changes (2). Age-related changes in physiology and long-term drug use can increase adverse drug reactions in older people, exacerbate a decline in organ function, and increase respiratory disorders and cancers (3). Higher rates of blood-borne viruses (BBVs), and physical and mental health morbidity are reported among older people who use drugs compared to their younger cohorts (4). In terms of gender differences, older women who use drugs exhibit poorer overall health status and more chronic physical and mental health problems than older men who use drugs (5). Women report higher rates of heart disease, circulation problems, asthma, bladder problems, colitis/bowel problems and arthritis than their male counterparts (6). Women who use opioids and alcohol report higher levels of psychological distress, including anxiety, depression and panic disorder than men (5, 6). Adverse childhood experiences are associated with lifetime mental health conditions and alcohol and substance use among older people (7, 8) and women who use heroin are potentially more prone to mental health conditions than their male counterparts given that many are likely to have experienced emotional, physical and sexual violence and exploitation (9, 10). While existing research suggests gendered differences in physical and mental health problems among older people who use substances, the lack of focus on gender differences is a limitation in understanding the complex physical and mental health needs of older men and women who use opiates, alcohol and other drugs (5, 11).

For most women, the reproductive lifecycle is one of the biological conditions that distinguishes their bodily experiences from men. Women who use drugs can experience amenorrhoea (the absence or cessation of menses in women of reproductive age) (12). Perceived infertility due to drug-induced amenorrhoea may result in unplanned pregnancy (12, 13) during active drug use and following abstinence when the women's menstrual cycle begins again. Though limited, evidence suggests that older women who use drugs may be at risk of earlier onset of menopause than those in the general population (14) and issues related to the menopause can be complicated by methadone treatment (15). Symptoms such as hot flushes resemble symptoms of opiate or methadone withdrawal (16, 17). Women with drug using histories experiencing increased levels of physical discomfort, insomnia, irritability, anxiety, and depression during their menopausal transition may be at higher risk of relapse (15). The social marginalisation of women who use drugs combined with the intersection of being an older woman risks inhibiting wider medical and sociological interest in this particular group of women.

As the site of biographical experiences, bodies are shaped by people's socio-economic and cultural circumstances (18). Midlife can be for some people a critical time to manage both chronic conditions and mental health conditions (19). For people who have used drugs over a long period of time, midlife and older can be a time when the somatic nature of the body becomes more evident. The substance use recovery literature is large and increasing but there are relatively few studies that examine the bodily aspects of recovery. Seminal recovery studies discuss people's health in relation to the impact of drug use and methadone treatment but not their health in recovery (20, 21). While there has been some research that has explored bodies in recovery, this work remains limited. Nettleton et al. (22) found people in recovery endure more bodily discomfort and pain over a longer period compared to people who used drugs. Neale et al. (23) explored how the use of opiates and opioids can mask bodily pains but in recovery, the emergence of aches and pains are perceived as the result of general wear and tear from prior substance use, stress, tension and ageing (23). In order to more fully understand the impact of health on recovery "a fuller appreciation of the lived experiences of recovery must incorporate and give greater attention to the body" [(22), p. 353]. This paper provides that attention by seeking to understand what it means to move from a substance using body to a recovered body as women age into their recoveries from substance use.

Leder's (24) concept of dys-appearing bodies is a useful tool that can provide a phenomenological understanding of women's embodied experiences of drug use and recovery through the temporal phase of mid-life. Leder's theory looks at the human body as a lived structure that is central to our lived experience. The lived body is an embodied self that "lives and breathes, perceives and acts, speaks and reasons" [(24), p. 6]. Bodily dys-appearance occurs "when the body undergoes some disturbance, when it "seizes" our awareness" [(24), p. 70]. "Dys" originates from the Greek prefix, meaning bad or ill. For example, we notice pain and bodily discomfort when they stand out from all the other sensations we experience. They hurt and re-focus our attention inward; re-organising our relationships with lived space and time, others and ourselves. But, pain, discomfort and other bodily sensations can also be difficult to articulate to others (and sometimes ourselves) (25). They can disrupt our connection with the external world, inducing self-reflection and isolation. They constrict our being-in-the-world back to an awareness of our own body and the particular body area where sensations are felt. The spatial world stops being the "centre of purposeful action" [(24), p. 75] and the temporal world contracts. Physical discomfort demands our attention and brings us back to the here and now. Bodily dys-appearance can also be characterised by affective disturbance [(24), p. 85]. Anxiety, for example, manifests itself somatically through a number of bodily symptoms including increased heart rate, feeling nauseous and difficulty breathing. Activities, therefore, are directed towards the goal of removing pain and bodily discomfort. Both health and illness exhibit alienations from the body—in health the body disappears and attention is directed towards the world; in illness and discomfort the body dys-appears and attention is directed inward to the self. So too with affective disturbance—in health, capacity to direct attention towards the world is expanded; in anxiety, depression or other forms of affective disturbance the mind dys-appears and attention is directed inward towards the self.

The lived experiences of pain and bodily discomfort in older women who use drugs is an important but barely explored area of research within the drug research literature. The interactions of older age, accompanying illness, drug use,

and recovery are yet to be explored. We know there is some evidence that older drug users are reluctant to ask for help due to perceived or enacted discrimination (26) therefore, as populations age, it is increasingly pressing that the role of somatic dys-appearance during drug use and recovery should be considered by researchers within the spheres of women's health and addiction studies.

METHODS

Recruitment

Women over age 35 with a history of drug use were recruited to this study. The cut-off age of 35 years could be considered young but the health effects of prolonged drug use and its effect on the ageing body suggests that women who were early onset users and engaged in long-term drug use may have a biological age that is older than their chronological age (27, 28). Long-term drug use is defined as 11 years or more (29). Convenience sampling was utilised in this study, as older people who use drugs and particularly older women who use drugs, are a hard-to-reach group (30). Participation was voluntary and the study was advertised through email distribution by contacts and colleagues; on flyers and posters in locations where people in recovery meet, such as recovery cafes; and posted on online recovery sites. Women who chose to participate were included if they met the following criteria: 1) women with a history of illicit drug use; 2) self-identified as in recovery from drug use (abstinent or low risk use) and 3) were 35 years old or older. Participants were excluded if: 1) they said they did not meet the inclusion criteria; 2) identified as having mental ill health or other issues that might trigger distress during the interview or 3) were non-English speakers. In the event, two women were excluded as neither had engaged in illicit drug use. Once participants agreed to interview, arrangements were made for interviews to be conducted at a venue chosen by the women. Ten women chose their home as the location for the interview; five were interviewed on their work premises; and, four chose to come to the first author's university office. Each interview was carried out in a private space. The interviews were conducted one-to-one by the first author (who has extensive experience of carrying out sensitive interviews) and lasted on average 60 min.

Topic Guide

The topic guide for the study was piloted and developed through work carried out in a previous study (31). The advantages of piloting the topic guide for this study were that it helped hone the questions, identify challenges in the interview process, and follow up areas of further interest. For example, following the pilot study, more opportunities were created for the women to discuss their experiences of health and therapeutic relationships through their periods of drug use and recovery. To help women feel comfortable to talk about their bodies in recovery, questions were adapted from previous studies with older women to help prompt them to discuss appearance and the corporeal aspects of ageing (32, 33). The opening health question moved from the piloted question "*Can you tell me about any changes to your health as you've stopped using?*" to the more open *"How is your health today? How does it compare to when you were in your twenties?"* Indirectly asking about health promoted discussion around the ageing body without any perception of participant discomfort or reticence.

Analysis

An inductive and deductive analytical approach was used. An inductive analysis develops concepts and themes from the raw data and is an iterative process whereby the data are collected and analysed simultaneously (34). I Nevertheless, it is also recognised that it is impossible to approach the data without any preconceived ideas of what themes or concepts might emerge from the raw data [(35), p. 210] hence a deductive approach is acknowledged.

The interviews were transcribed verbatim by the first author. The first author checked a sample of five transcripts against the recorded data for quality control to ensure their accuracy. In addition, 17 participants were given the opportunity to read through their transcripts. Two participants did not have an opportunity to check their transcript as there was no way to contact them without going through a third person. Maintaining their confidentiality was crucial and as such their transcripts were not forwarded. Of the 17 who were given the opportunity to read and check their transcripts, 12 took up the offer and five responded positively. No participants raised any issues, corrections or complaints.

The transcripts were analysed using Braun and Clarke's (36) thematic analysis technique. Thematic analysis is a flexible and useful heuristic device for managing and producing a detailed account of data and is widely used within qualitative drug-based research (37–39). The advantage of thematic analysis is its relatively simple yet robust analytical strategy. The interview transcripts were coded thematically through six phases by the first author: familiarisation with the data, transcription, initial coding, searching for themes, reviewing themes, defining themes, and report writing. Transcribed interviews were read through at least twice for familiarisation. At this stage, ideas about themes began to emerge and coding began to take shape. A coding framework was devised to identify themes and sub-themes in the interview transcripts. As this study followed on from a pilot study, a number of top-level themes were already identified from the pilot work and related to the study aims. For example, *a priori* themes included health, ageing, and recovery. These top-level themes were relevant and coded to all participants as they were the main topics discussed in the interviews. The coding was further refined as interviews progressed and with repeated reading of the transcripts. For example, in further iterations the code "*health*" was further refined into additional secondary codes, such as women's experiences of the menopause or drawing on the literature to include the concept of "*dysappearing bodies*." The first author (AS) maintained a coding book, in which codes, description and examples were detailed and discussed with the co-authors of this paper (GR and LP). The qualitative software package NVivo 11© was used to code and categorise the interview data.

Ethical Considerations

The study was approved by the University of Glasgow's College of Social Sciences Research Ethics Committee (ApplicationNo:400170200). Women who expressed an interest in the study were given the participant information sheet and given at least two days to read through it and ask questions before signing the consent form. The women were assured complete anonymity, with all identifiable information removed from transcripts, and published materials. All names used are pseudonyms.

RESULTS

Sample

Nineteen women with a history of using illicit drugs and recovery participated in the study. The women were aged between 36 and 60 years (mean average age 47). The women resided in a mix of urban ($N = 10$), rural ($N = 6$) and coastal locations ($N = 3$) across the North of England and Scotland. Fifteen women were early onset users, starting drug use in their teens and early twenties. Four women were late onset users, starting in their late twenties and early thirties. The participants used a range of drugs including heroin, powder cocaine, crack-cocaine and skunk weed between 7 and 47 years (mean average 21 years). The mean average age at which the women gave up drug use was 34 years old, ranging between 26 years and 54 years of age. Time in recovery ranged from 6 months to 18 years (mean average 9 years). Sixteen women reported no drug use and three women reported occasional low-risk drug use including intermittent use of cocaine, cannabis and alcohol, amphetamines and heroin (low-risk defined as illegal drug use at minimum level causing no psychological, legal, employment, family or health problems [(40), p. 83]).

Health and Bodies in Recovery—Temporality and Power

The women in this study reported a range of mental health conditions including anxiety, bi-polar personality, schizophrenia, and depression that many had experienced prior to recovery, and some prior to their onset of drug use. Most had experienced or witnessed physical and/or sexual violence as children and/or adults. At least seven women had been prescribed anti-depressants for decades. Nonetheless, most of the women described improvements in mental health after they stopped using drugs although this occurred gradually over time in recovery. Discussing early recovery and mental health well-being some of the women recalled their vulnerability in relation to intimate relationships.

> "*I would say the first couple of years in recovery. It's a very dangerous place, psychologically.*" (Fiona, age 44, recovery 17 years)
>
> "*I had a period of time a few years ago when I was completely clean and some of the behaviours, some of the stuff that I was doing with men, using men to make me feel good...I suppose it was a bit like, it was addictive behaviour you know…I think I had some kind of breakdown or something and obviously I relapsed...*" (Claire, age 39, recovery 18 months)

Viewing from the present her behaviours in previous recovery as "*dangerous*" and "*crazy*," Claire actioned intimacy with men to improve her self-esteem and sense of self-worth. For Jennifer, aged 44, coming to terms with her past meant coming to terms with her body:

> "*I think that those behaviours that I learned to manage life for a long time, see my body as a sexual object, something that I used in some transaction, those behaviours were probably the hardest ones to change. Stopping drugs was hard but even when I stopped drugs I continued those behaviours at periods you know here and there. So I think today I see my body as, it's just a body. It doesnae have any power or anything like that...It took me a long time to connect with my body and feel like I was alright with it.*" (Jennifer, age 44, recovery 10½ years).

Learning how to manage emotions and subsequent behaviours in ways that did not leave them feeling exploited (either by their own actions or by those of others), was important in enabling some of the women to come to terms with their bodies in the past and appreciate them in the present: thus, improving their sense of bodily self-efficacy and self-esteem.

In terms of physical health, some of the reported conditions included chronic obstructive pulmonary disease (COPD) and emphysema which some participants attributed to smoking drugs; nerve pain and deep vein thrombosis occurring from injecting drug use; and trigeminal neuralgia and fibromyalgia, rheumatoid arthritis and arthritis that occurred, or the women became aware of, in recovery. Seven women had cleared the hepatitis C virus (HCV), contracted during their period of using drugs. No women had hepatitis B or C at time of interview. While most of the women described their current physical health as good there were concerns that irreparable damage had been done to their bodies as a consequence of their drug use. Women in both long-term and early recovery expressed concern that risk behaviours in the past might have consequences for their health in the future:

> "*It does concern me that ehm… there's maybe some damage that I've done maybe in my past or ehm that's going to come back and bite me on the arse. That's going to come back ehm and kill me maybe...I'm constantly aware of my mortality now I think. And I think that's because I'm fucking over 50. And I just think about how careless I was with my health and my life.*" (Lorna, age 53, recovery 18 years)
>
> "*I've got a lot of fear as well you know because my family all die young with cancer you know… and I went for genetic testing and they said I've got a 80% chance of lung cancer but didn't stop me using or smoking or anything like that. Now I'm more thinking about it now. I'm like that "oh fuck" you know. But what's for you is for you, you know what I mean. That's the way I've got to think. I cannae sit and just dwell about it.*" (Sara, age 44, recovery 18 months)

Both Lorna and Sara felt a sense of their own mortality as women in mid-life: Lorna because she was "*over 50*" and Sara as she approached her mid-40s. Lorna's "*concern*" that past

"*careless*" behaviours had contributed to known (HCV) and unknown health conditions was underpinned by the helplessness she felt. Sara's fear was compounded by a family history of cancer and while worried about the consequences of her cocaine use, knowing there could be a genetic propensity to cancer, she accepted it as something she had no control over. Both women felt a sense of powerlessness regarding their future health status. Nonetheless, Sara and Lorna's narratives illustrate how some women make sense of their health in the present, which is anchored to behaviours in the past that have potential to impact on health and well-being in the future. Moreover, the pervasive social value of individuals taking personal responsibility for their health may be such that, no matter how long women have been in recovery, former actions, lifestyles and behaviours that were potentially physically injurious to health and well-being are used to explain current health conditions by the women themselves and their health providers (41).

Perhaps because of a tendency to accept their current health as a consequence of past behaviours, some of the women compared their health to other people who use drugs and spoke about pain and illness as something to be endured. A number of the women described their health as good although they suffered pain on a daily basis.

> "*Aye I've got a sore hip but on the whole I'm not too bad. I have got chronic lower back pain...I've got asthma, but on the whole my health's really good. And I know I'm lucky and I'm grateful because I know a lot of people at my age whose health is not nowhere near as good and you lose a lot of people. There's always someone passing away. Like every week there's someone else."* (Grace, age 49, recovery 5 years)
> "*But like I says my health now, obviously I'm feeling all the aches and pains and whatnot…All the damage I've done to my nerves with all the injecting in my legs and things like that. Ehm but I'm not really complaining either. Especially when I think back what I put my body through and how I've come out the other end of it...."* (Terri, age 59, recovery 10 years)

Some of the women were stoical regarding their current health, "*grateful"* for having survived their drug use relatively unscathed. It has been theorised that certain types of pain and illness (such as that associated with substance use) are experienced as 'moral events' involving internalised and externalised shaming and blaming (42). A tendency to judge people who use drugs, plus the stigma associated with injecting drug use and bloodborne viruses is such that some people may be reluctant to discuss health issues anticipating some form of felt or enacted stigma from others (43). Furthermore, emphasising personal responsibility for their health, risks disregarding the political, economic and socio-cultural circumstances of people's lives (44). Maya, age 42, recommended that practitioners working with older women who use drugs should remember, *"We are people with complex issues and often very challenging histories, not necessarily of our own making."*

Ageing in Recovery

Some women spoke about changing their outlook on their health as they got older. Acknowledging potential damage to their health from past drug use, the women now took steps to improve their health in the present.

> "*I feel like my attitude towards my health, I would never, like I went for a smear test last Tuesday. I never miss anything. I feel really privileged to be in a country where we get those regular checks for free. Ehm, so I buy into all of them."* (Jennifer, age 44, recovery 10½ years)
> "*As I've got older my health has become more important...I think gradually there's been an awakening of self-worth that's directly related to self-care."* (Janine, age 47, recovery 21 years)

Janine's attention to her health was prompted by her sponsor in Alcoholics Anonymous who encouraged good nutrition, exercise and sleep. From Janine's perspective, changes to her diet and general self-care had led to improvements in both her health and her sense of deserving care: *"I was worthy of that care."*

Abstaining from drugs and entering recovery revealed aches, pains and other symptoms that were absent while the women were using drugs.

> "*The first thing that I noticed when I got clean was that life hurts....I'd been using opiates for years and years and years. Not feeling any pain apart from the pain of withdrawal. And once that's over I realised, my god, my bones have aged somewhat…I felt like an old woman complaining to the doctor "This is sore and that's sore.""* (Lorna, age 53, recovery 18 years)

> "*I never thought I had bad health until I stopped...Soon as I stopped oh my god. I think I went from a 20 year old to an 80 year old. Just the pains you get and you're beginning to realise what other things you have, things that are wrong with you that you didn't think you had."* (Shona, age 60, recovery 12 years)
> "*I think when I was using drugs, it masks so much doesn't it"* (Kate, age 60, recovery 5½ years)

The women likened their painful bodies to old bodies and recovering bodies. Lorna, who stopped using illicit drugs at age 35 and Shona, who stopped at age 48 both described their drug-free bodies (in early recovery) as "old." Applying Leder's (24) hypothesis, their ageing, recovering bodies seized the women's attention. During their drug using period, their bodies went unnoticed until withdrawal pains seized their attention. In recovery, with no opiates or other self-medicating drugs in their system, pain or discomfort were noticed when they interrupted their consciousness. At this point the women's bodies were no longer "absent," instead they disturbed or "dys-appeared" (24).

In addition to a reduction in or absence of illicit drug use, the decrease or absence of prescribed drugs also heightened the women's awareness of pain.

> "*Back then ehm I…when I was obviously getting so much pain killers, taking my painkillers and Valium, never felt pain eh. Never felt anything eh. Total numb feeling it was, I suppose. But now I'm in pain all the time."* (Shona, age 60, recovery 12 years) "*And that's the other thing because I am older and I'm weaning myself off this pain medication, when I was young I never had any aches and pains. I was like 'oh fuck' you know so there is this as well. I think your body gets used to aches and pains but basically because I've*

anaesthetised myself for so many years, I'm just, can't cope with it. So that does concern me a bit." (Nina, age 55, recovery 12½ years)

Nevertheless, some of the women were reticent to blame all their aches and pains on the absence of drugs and felt that they were experiencing the "natural" bodily discomforts of the ageing process. As Shona stated, *"I put a lot of things down to I'm getting old because I am."* (Shona, age 60, recovery 12 years).

Ageing Into the (Peri-) Menopause

The women in this study were at different stages in their reproductive lifespan. Some were still menstruating or entering into the peri-menopause while a few were post-menopausal. This section reveals some of the women's discussions around menstruation and the menopause and its impact on their recovery.

Women who use drugs can experience amenorrhoea, the absence or cessation of menses (periods) in women of reproductive age (12). For Jennifer (age 44, recovery 10½ years), recalling her absence and thinking about her embodied future, this meant:

"All that weight loss to not having periods for years. That's osteoporosis in the post." (Jennifer,

Perceived infertility due to drug-induced amenorrhoea may result in unplanned pregnancy (12) during active drug use and following abstinence when the women's menstrual cycle begins again. Fiona found out she was 26 weeks pregnant following detoxification from methadone, heroin and diazepam and said:

"I didn't realise I was actually pregnant because I'd not had regular periods for about 2 years." (Fiona, age 44, recovery 17 years)

The return of women's periods after years of drug use can be an uncomfortable aspect of recovery, as described by Claire:

"PMT is horrendous. I dread it. And it seems to surprise us each month. I'm like what's going on, why do I feel like this and why is my head racing...So yeah, I really struggle with it. It's, you know, this recovery stuff, getting used to feelings and thoughts anyway, it's hard enough without all that going on. PMT stuff...Yeah. I don't find it easy this time of the month I really don't. And I think that anxiety gets a lot more when I'm due my period." (Claire, age 39, recovery 18 months)

These findings support other studies on women recovering from heroin use (23). For some women in early recovery who are learning to manage their emotional well-being, menstruation involves a process of recognising, remembering and self-discipline. Insights into the potential for relapse caused by the return of menstrual symptoms and the anxiety that can accompany them suggest this is an area of women's recovering health that requires further enquiry.

Seven women discussed their experiences of the peri-menopause, the transition time to the menopause, when menstruation ceases altogether. Jennifer used a combination of hormone replacement therapy (HRT) and mindfulness practise to manage her symptoms which she described as "*extreme*" and having "*a significant impact on* [her] *well-being.*" Symptoms included brain-fog, anxiety, fatigue and loss of libido.

"My GP initially diagnosed me as being depressed and I was offended almost because I knew I was feeling a bit down but I didnae feel like I was depressed. This was a male doctor and I sought a second opinion and went to a female doctor and she got it instantly and she went "no, you're not depressed this is what's going on for you." And just to have someone to validate that and go "yep, this is." And I thought that's what it was." (Jennifer, age 44, recovery 10½ years)

While Jennifer attributed her low mood to the changes that come with (peri-) menopause, her experience echoes those of women elsewhere with regard to health concerns diagnosed as psychogenic by medical practitioners (16, 45). Jennifer felt that the menopause was an issue that needed to be discussed with women in recovery:

"I think that menopause as well is something that should be talked about...especially for women in recovery. I think you're programmed to always bring things back to yourself and look at yourself and what's going on with you then going through this period of my life this is not something that is the result of my past or, it's just something that all women go through." (Jennifer, age 44, recovery 10½ years)

The menopause, as Jennifer points out, is a natural bodily transition that requires medical and/or social support and understanding in the present, not personal self-reflection on past or present behaviours or actions. Like Claire, around the start of her periods, who experienced sensations that felt like the more familiar sensations of withdrawal and cravings, Grace recalled her menopause symptoms as similar to being *"on something"* and found it worrying and uncomfortable.

"I just felt like I had baby brain. Everything was getting on top of me. I was getting forgetful. I was thinking I was on something when I wasn't. Just I don't know. Couldn't concentrate. Wasn't sleeping properly. Hot flushes. Over and over. They just got worse and worse and worse. Headaches. Restless. Emotional." (Grace, age 49, recovery 5 years)

These findings show that older women in recovery from drug use can experience menstrual, peri-menopausal and menopausal symptoms that feel, to them, similar to the effects of narcotic drugs and drug withdrawal. This presents not only a potential relapse trigger, but also a set of symptoms that are open to misinterpretation by a medical profession that already has a history of dismissing women's understandings of their own bodies as psychogenetic (45), and specifically of dismissing the sense-making of women in recovery through an addiction and recovery lens (46). Together, these produce a double barrier to care, as women and care providers both make sense of menstrual, peri- and menopausal symptoms through both a substance use and wider psychogenetic lens.

Having considered the women's self-reported health and experiences of their bodies and ageing in recovery, the next section explores trauma as felt and embodied by the women.

Embodied Trauma, Embodied Emotions

Most of the women discussed having experienced some form of physical or psychological trauma. In the *Body Keeps the Score*, Van der Kolk (47) suggests post-traumatic stress disorder (PTSD) is embodied and carried on in the body long after the trauma has stopped. Terri, a child-rape victim expressed how that event had affected her health and that even with counselling the physical and mental health effects of the trauma remained:

> *"It's the amount of years that it's took that's, it's a hard part as well. And it's all the drugs and the drink and how it affected my health as well into the bargain. Because I'm in pain every day, every day. Seven days a week...And it's just so, so unbelievable how much that could just change your life like that. Ken, somebody could sit and speak to you for hours but when that person goes away it's just there again."* (Terri, age 59, recovery 10 years)

Terri was particularly graphic in describing the intense embodied emotions she still experienced in times of distress. A few months earlier, she had been abused on social media.

> *"Oh I was devastated....And I was like I was drained with it… totally drained. I was really gutted about the whole situation like. And it went from there to they were actually going to put me under the counsellor because I told the doctor "that is on my mind in the morning when I wake up. When I go to my bed." I said "I am so embarrassed that I feel humiliated at all the amount of people that's joined in and that. Honestly" I says "I feel absolutely gutted wi this." And I actually lost weight just in that wee space of time wi the stress of it. I'll never forget it. I'll no, that'll never just go away."* (Terri, age 59, recovery 10 years)

The embodied emotions Terri felt had a temporal aspect that was not easily shaken. Terri imagined she would never forget how she felt, her embodied humiliation carried into the future. Time contracts as embodied emotions and trauma are felt and relived. The past, present and future seemingly combine. Maya described how images evoke painful memories for her:

> *"Like I was saying with the photo… because how horrible the image it creates for me in my mind you know I can see myself, I can remember the feelings and how I felt at that time and it was so horrendous."* (Maya, age 42, recovery 14 years)

Despite all the work the women have put into their recovery, the trauma they have experienced throughout their lives, is still carried within their bodies. Research elsewhere has described the return of emotions in early recovery as something akin to becoming "un-numb" [(23), p. 93]. Eventually, emotions settle and people learn how to manage them more effectively. The findings in this study echo those of Neale et al. (23) but also demonstrate that even in long-term recovery the body still "keeps the score" (47) when remembering past events and traumas.

DISCUSSION

The interviews illustrate the complex bodily processes felt by women in recovery from substance use. The women described a number of mental and physical health symptoms that have also been identified in other studies with substance users (4–6, 48). However, this study moves beyond describing health conditions to explore mid-life and older women's bodily experiences of drug-free and ageing bodies. The long-term effects of prolonged illicit and prescription drug use are concerns for these women, as is the cessation or reduction of some prescribed medications. They work hard to make sense of bodily sensations [around pain, discomfort, menstruation and the (peri-) menopause] and navigate these in relations with others—including medical practitioners who frame them as psychogenetic and/or related to their past drug use. The intersection of the ageing and drug-free body brings to the foreground changes in the women's values towards their health where greater self-care is taken, and a process of self-understanding is undertaken. As younger women who used drugs, the body was, as Leder describes it, absent (24). Nevertheless, while their bodies went unnoticed in terms of pain and illness, their bodies were still valued in terms of transactional power. As older drug-free women, improvements in self-worth combined with a sense of personal responsibility for their health, helped them re-evaluate their bodies. For some women, this instilled feelings of greater bodily and emotional control that were absent through their drug-using period. However, ideas about personal responsibility were complicated. They were also at times related to an awareness of the wider social economic and political circumstances of the women's lives. In this sense, emphasis on individual responsibility risked downplaying factors over which the women had no control, and also heightened the risk for feelings of stigma and shame. Understanding of these wider factors that generated health risks was also important for developing ideas about being worthy of care. Some actively worked out to maintain good physical health and almost all practised some form of meditative or therapeutic practise to maintain good mental health. Despite their new and emerging pains, their bodies in recovery were preferable to their bodies in active drug use. This re-evaluation of bodies that are free from unmanageable and damaging drug use could provide opportunities for improving medical practise and recovery support with mid-life and older women. Understanding women's medical and drug-using histories is obviously important but as highlighted in the findings, can also be reductive. Practitioners could build on women's emerging and growing sense of worth and motivation for improving self-care by acknowledging and paying attention to the women's own understanding of their bodies and health. Advice and support around the bodily changes that abstinence incurs could help women make sense of these changes, reducing perhaps some of the discomfort and anxiety they experience. More attention could be given to

diet, physical activity and good mental health practises (such as mindfulness) which might help women manage more effectively the emerging and often uncomfortable, bodily sensations of early recovery.

Paying attention to the women's voices we hear how the body and health in recovery involves much more than abstinence from drugs. Moving from long-term substance use and into recovery is potentially a time of increased vulnerability for some women as their libido returns and they reach out for intimacy and support [(49), p. 23]. Understanding the body and their sexuality as it was in the past and its centrality to feelings of self-worth and self-esteem required the women in this study to learn how to deal with their emotions and bodily sensations without feeling bodily exploited. To what extent women struggle with this aspect of early recovery is relatively unknown but the findings from this study suggest that some women will find it challenging. Research into this aspect of women's early recovery could help raise awareness and inform practise around this period of potential vulnerability helping women avoid repeating negative behaviours from their past (50).

Most women approaching or in mid-life manage changes in their reproductive cycles. Menstruation and menopause are events that can interrupt and disrupt women's bodies and where symptoms need to be re-interpreted as natural bodily processes. The women in this study discussed their menses and (peri-) menopausal symptoms, shedding further light on a neglected aspect of research in the addiction literature. Adding to the work of Tuchman (16) and Johnson et al. (17), the women confirmed the "felt" similarities between the effects of drug use and withdrawal and the symptoms of pre-menstrual tension and the peri-menopause/menopause. They further reveal how these symptoms can be particularly challenging for women in early recovery. They have to learn to understand and interpret new and emerging bodily pain and sensations without the anaesthetising effects of drugs. Understanding these as natural could help reduce anxiety for women in active drug use, medication-assisted treatment, and recovery. Research that explores women's experiences of their reproductive lifecycles could help to reveal the complex intersections of gender, health and ageing in drug use and recovery. Insights gathered from women who use or have used drugs, as well as professionals in the fields of substance and use and/or women's health, could support the development and co-production of information materials, awareness-raising, and possible interventions and/or support around menses, the perimenopause and menopause. Implications for practise suggest treatment staff and prescribers are trained to listen to and support women, and transfer up-to-date knowledge on this aspect of women's health.

Moving from the body in active drug use to the body in recovery is not without its challenges for mid-life and older women, and for the practitioners who support them. New sensations and feelings, physical and mental, must be re-interpreted in light of their ageing and drug-free bodies. It is the body that carries them through their experiences and it is the body through which they experience the journey. Their bodies contain their past, present and future selves. It symbolises who they were, who they are and who they might become. Understanding what it feels like for women making this transition from substance use to recovery is relatively uncharted in the literature to date. Women's embodied recovery is about far more than just abstinence. As Maya reminds us, practitioners need to acknowledge that women, who have used or use drugs, often have challenging and complex histories unrelated to their drug use. Practitioners must pay attention to women's own understanding of their bodies, bodily sensations and physical health needs in order to provide them with effective health care and support as they move out of drug use, into and through recovery.

Limitations

The sample size of 19 women might be considered a limitation of the study however, the original sample size (15 to 25 women) was chosen to reflect the anticipated challenges of recruiting older women with a history of drug use (30). A larger sample of women from across the UK and a greater number of women in active drug use would provide a wider range of experiences to explore. Speaking with a greater number of women in their fifties and sixties could also elicit further information on the peri-menopause and menopausal period in women's lives, thus adding to the limited number of existing studies, most of which originate from the USA. Moreover, including older women from other marginalised groups such as homeless women, BAME women and women in the criminal justice system could add insights into the structural and socio-economic barriers and inequalities that impact on bodily recovery among women with a history of drug use. As such, the findings of this study, as with qualitative inquiry in general, cannot be said to represent the universal experiences of all older women with a history of drug use, although the methods used to collect the data and the findings could be transferable to health-based studies with populations of older women who use drugs elsewhere in the UK and beyond. Nevertheless, despite the size of the sample, the participants in this study reported having to learn how to understand their recovered or recovering body, how to interpret and respond to often novel and/or unwelcome bodily sensations, and to do so in relation to health care providers and others.

Final Thoughts

This paper explores from women's standpoints and within a context of ageing and health, journeys from being a woman who uses drugs to a woman in recovery, providing greater depth and understanding on, an issue that is relatively unknown in UK substance use research. Paying attention to the women's voices provides unique perspectives on their embodied recoveries, as felt and experienced by them. The women's experiences are singularly personal to them, yet taken together they offer deeper understanding of the bodily experiences that shape their health as they transition into and through recovery. In doing so, the paper provides an original and important contribution to studies that explore

the intersection of gender, substance use, ageing, recovery and the body.

DATA AVAILABILITY STATEMENT

The data that support the findings will be available in University of Glasgow's repository for research data (Enlighten: Research Data) and the UK Data Service (University of Essex) following a 24 month embargo from the date of publication to allow for publication of research findings. Requests to access the datasets should be directed to ashaw419@gmail.com.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University of Glasgow's College of Social Sciences Research Ethics Committee. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

AS is responsible for the conceptualisation, design of the study, fieldwork, data management, analysis, and drafted the first version. LP and GR critically revised and finalised it for publication. All authors approved and contributed to the final version.

FUNDING

This Ph.D. study was funded by the Economic and Social Research Council [ESRC (DTC) Main ES/J500136/1].

ACKNOWLEDGMENTS

The authors would like to thank the women who participated in this research and everyone who helped with recruitment.

REFERENCES

1. Miller, J, Carbone-Lopez, K. Beyond 'doing gender': Incorporating race, class, place, and life transitions into feminist drug research. *Subst Use Misuse*. (2015) 50:693–707. doi: 10.3109/10826084.2015.978646
2. Dowling GJ, Weiss SRB, Condon TP. Drugs of abuse and the aging brain. *Neuropsychopharmacology*. (2008) 33:209–18. doi: 10.1038/sj.npp.1301412
3. Akwe JA. Pulmonary effects of cocaine use. *J Lung Pulm Respir Res*. (2017) 4:00121. doi: 10.15406/jlprr.2017.04.00121
4. Badrakalimuthu VR, Tarbuck A, Wagle A. "Maintenance treatment programme for opioid dependence: characteristics of 50+age group." *Drugs Alcohol Today*. (2012) 12:57–163. doi: 10.1108/17459261211263451
5. McHugh RK, Votaw VR, Sugarman DE, Greenfield SF. Sex and gender differences in substance use disorders. *Clin Psychol Rev*. (2018) 66:12–23. doi: 10.1016/j.cpr.2017.10.012
6. Grella CE, Lovinger K. Gender differences in physical and mental health outcomes among an aging cohort of individuals with a history of heroin dependence. *Addict Behav*. (2012) 37:306–12. doi: 10.1016/j.addbeh.2011.11.028
7. Choi NG, DiNitto DM, Marti CN, Choi BY. Association of adverse childhood experiences with lifetime mental and substance use disorders among men and women aged 50+ years. *Int Psychogeriatr*. (2017) 29:359–72. doi: 10.1017/S1041610216001800
8. Larkin H, Aykanian A, Dean E, Lee E. Adverse childhood experiences and substance use history among vulnerable older adults living in public housing. *J Gerontol Soc Work*. (2017) 60:428–42. doi: 10.1080/01634372.2017.1362091
9. Gilchrist G, Gruer L, Atkinson J. Predictors of neurotic symptom severity among female drug users in Glasgow, Scotland. *Drugs*. (2007) 14:347–65. doi: 10.1080/09687630601062941
10. McKeganey N, Neale J, Robertson M. Physical and sexual abuse among drug users contacting drug treatment services in Scotland. *Drugs*. (2005) 12:223–32. doi: 10.1080/09687630412331317998
11. Rosen D, Hunsaker A, Albert SM, Cornelius JR, Reynolds CF. Characteristics and consequences of heroin use among older adults in the United States: a review of the literature, treatment implications, and recommendations for further research. *Addict Behav*. (2011) 36:279–85. doi: 10.1016/j.addbeh.2010.12.012
12. Mburu G, Ndimbii J, Ayon S, Mlewa O, Mbizvo M, Kihara C, et al. Contraceptive use among women who inject drugs: motivators, barriers, and unmet needs. *Women's Reprod Health*. (2018) 5:99–116. doi: 10.1080/23293691.2018.1463737
13. Bell J, Harvey-Dodds, L. Pregnancy and injecting drug use. *Br Med J*. (2008) 336:1303–5. doi: 10.1136/bmj.39514.554375.AE
14. Tuchman, E. Exploring the prevalence of menopause symptoms in midlife women in methadone maintenance treatment. *Soc. Work Health Care*. (2007) 45:43–62. doi: 10.1300/J010v45n04_03
15. Schoenbaum EE, Hartel D, Lo Y, Howard AA, Floris-Moore M, Arnsten JH, Santoro N. HIV infection, drug use, and onset of natural menopause. *Clin Infect Dis*. (2005) 41:1517–24. doi: 10.1086/497270
16. Tuchman E. Women and addiction: the importance of gender issues in substance abuse research. *J Addict Dis*. (2010) 29:127–38. doi: 10.1080/10550881003684582
17. Johnson TM, Cohen HW, Howard AA, Santoro N, Floris-Moore M, Arnsten JH, et al. Attribution of menopause symptoms in human immunodeficiency virus-infected or at-risk drug-using women. *Menopause*. (2008) 15:551. doi: 10.1097/gme.0b013e31815879df
18. Cunningham-Burley S, Backett-Milburn K. The body, health and self in the middle years. In: Nettleton S, Watson J. *The Body in Everyday Life*. London: Routledge (1998). pp. 142–59.
19. Johnson PJ, Mentzer KM, Jou J, Upchurch DM. Unmet healthcare needs among midlife adults with mental distress and multiple chronic conditions. *Aging Ment Health*. (2021) 26:775–83. doi: 10.1080/13607863.2021.1904830
20. McIntosh J, McKeganey NP. *Beating the Dragon: The Recovery From Dependent Drug Use*. Harlow: Prentice Hall (2002).
21. Biernacki P. *Pathways From Heroin Addiction: Recovery Without Treatment*. Philadelphia, PA: Temple University Press (1986).
22. Nettleton S, Neale J, Pickering L. 'I don't think there's much of a rational mind in a drug addict when they are in the thick of it': towards an embodied analysis of recovering heroin users. *Sociol Health Illness*. (2011) 33:341–55. doi: 10.1111/j.1467-9566.2010.01278.x
23. Neale J, Nettleton S, Pickering L. *The Everyday Lives of Recovering Heroin Users*. London: Royal Society of Arts (2012).
24. Leder D. *The Absent Body*. Chicago, IL: University of Chicago Press. (2015)
25. Scarry E. *The Body in Pain: The Making and Unmaking of the World*. New York, NY: Oxford University Press (1987).
26. Scottish Drugs Forum. *Older People With Drug Problems in Scotland: Addressing the Needs of an Ageing Population*. Glasgow: Scottish Drugs Forum (2017).
27. Bachi K, Sierra S, Volkow ND, Goldstein RZ, Alia-Klein N. Is biological aging accelerated in drug addiction? *Curr Opin Behav Sci*. (2017) 13:34–9. doi: 10.1016/j.cobeha.2016.09.007
28. Vogt I. Life situations and health of older drug addicts: a literature report. *Suchttherapie*. (2009) 10:17–24. doi: 10.1055/s-0028-1128135
29. Han B, Gfroerer JC, Colliver JD. Associations between duration of illicit drug use and health conditions: results from the 2005–2007

national surveys on drug use and health. *Ann Epidemiol.* (2010) 20:289–97. doi: 10.1016/j.annepidem.2010.01.003
30. Moxon D, Waters J. *Illegal Drug Use Through the Lifecourse: A Study of 'Hidden' Older Users*. Abingdon, Oxon: Taylor & Francis (2016). doi: 10.4324/9781315587790
31. Shaw A. *Exploring the influence of social relationships on identity, drug use and recovery among older drug using females* (MRes thesis). University of Glasgow, Glasgow, Scotland (2017)
32. Liechty T. "Yes, I worry about my weight … but for the most part I'm content with my body": older women's body dissatisfaction alongside contentment. *J Women Aging.* (2012) 24:70–88. doi: 10.1080/08952841.2012.638873
33. Hofmeier SM, Runfola CD, Sala M, Gagne DA, Brownley KA, Bulik CM. Body image, aging, and identity in women over 50: the Gender and Body Image (GABI) study. *J Women Aging.* (2017) 29:3–14. doi: 10.1080/08952841.2015.1065140
34. Bryman A. *Social Research Methods*. Oxford: Oxford University Press (2016).
35. Joffe, H. Thematic analysis. In: Harper D, Thompson AR. *Qualitative Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners.* Chichester: Wiley (2011). p. 209–23. doi: 10.1002/9781119973249.ch15
36. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol.* (2006) 3:77–101. doi: 10.1191/1478088706qp063oa
37. De Maeyer J, Vanderplasschen W, Camfield L, Vanheule S, Sabbe B, Broekaert E. A good quality of life under the influence of methadone: a qualitative study among opiate-dependent individuals. *Int J Nurs Stud.* (2011) 48:1244–57. doi: 10.1016/j.ijnurstu.2011.03.009
38. Shannon K, Kerr T, Allinott S, Chettiar J, Shoveller J, Tyndall MW. Social and structural violence and power relations in mitigating HIV risk of drug-using women in survival sex work. *Soc Sci Med.* (2008) 66:911–21. doi: 10.1016/j.socscimed.2007.11.008
39. Rhodes T, Watts L, Davies S, Martin A, Smith J, Clark D, et al. Risk, shame and the public injector: a qualitative study of drug injecting in South Wales. *Soc Sci Med.* (2007) 65:572–85. doi: 10.1016/j.socscimed.2007.03.033
40. Carballo JL, Fernández-Hermida JR, Secades-Villa R, García-Rodríguez O. Effectiveness and efficiency of methodology for recruiting participants in natural recovery from alcohol and drug addiction. *Addict Res Theory.* (2009) 17:80–90. doi: 10.1080/16066350802401295
41. Kearney MH. *Understanding Women's Recovery From Illness and Trauma, Vol. 4.* Thousand Oaks, CA: Sage (1999).
42. Werner A, Isaksen LW, Malterud K. 'I am not the kind of woman who complains of everything': illness stories on self and shame in women with chronic pain. *Soc Sci Med.* (2004) 59:1035–104. doi: 10.1016/j.socscimed.2003.12.001
43. Scambler G. Re-framing stigma: felt and enacted stigma and challenges to the sociology of chronic and disabling conditions. *Soc Theory Health.* (2004) 2:29–46. doi: 10.1057/palgrave.sth.8700012
44. Karadzhov D. Personal recovery and socio-structural disadvantage: a critical conceptual review. *Health (London).* (2021). 1–25. doi: 10.1177/13634593211014250
45. McGregor AJ. *Sex Matters: How Male-Centric Medicine Endangers Women's Health and What We Can Do About It*. Paris: Hachette Go (2020).
46. Shaw A. *Older women managing relationships and navigating health in drugs recovery: A qualitative study* (Doctoral dissertation). University of Glasgow, Glasgow, Scotland (2021).
47. Van der Kolk BA. *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma*. London: Penguin Books (2015).
48. Rosen D, Smith ML, Reynolds CF 3rd. The prevalence of mental and physical health disorders among older methadone patients. *Am J Geriatr Psychiatry.* (2008) 16:488–97. doi: 10.1097/JGP.0b013e31816ff35a
49. Skårner A, Månsson SA, Svensson B. 'Better safe than sorry': women's stories of sex and intimate relationships on the path out of drug abuse. *Sexualities.* (2017) 20:324–43. doi: 10.1177/1363460716665782
50. Skårner A, Svensson B. Women's and men's stories about sex and intimate relationships in long-term recovery from problematic drug use. In: Galvani S, Roy A, Clayson A. *Long-Term Recovery from Substance Use: European Perspectives.* Bristol: Policy Press (2022). 67–79. doi: 10.2307/j.ctv273k4n6.14

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers | Frontiers in Psychiatry

BRIEF RESEARCH REPORT
published: 27 May 2022
doi: 10.3389/fpsyt.2022.890635

Housing Correlates in Pregnant and Parenting Women Using Methamphetamine and Accessing Psychiatric Care

Johannes Petzold[1†], Laura Rehmet[1], Benjamin Weber[1†], Maik Spreer[1], Maria Krüger[1], Ulrich S. Zimmermann[1,2†] and Maximilian Pilhatsch[1,3†]*

[1] Department of Psychiatry and Psychotherapy, Carl Gustav Carus University Hospital, Technische Universität Dresden, Dresden, Germany, [2] Department of Addiction Medicine and Psychotherapy, Kbo-Isar-Amper-Klinikum München-Ost, Haar, Germany, [3] Department of Psychiatry and Psychotherapy, Elblandklinikum Radebeul, Radebeul, Germany

Background: Integrated care is a promising model for pregnant and parenting women with problems related to methamphetamine use. Yet more research is imperative to guide services for this vulnerable population as methamphetamine use contributes to housing instability, which is associated with heavier use and overdose death.

Method: This prospective observational study analyzed how housing at discharge from psychiatric care was related to patient characteristics, program participation, and aftercare in 102 pregnant and/or parenting women.

Results: Twelve of 23 women who were unstably housed at admission (three of six homeless) achieved stable housing by discharge from integrated care. Women were more likely unstably housed at discharge when unstably housed at admission, single, living apart from at least one minor, or when the other parent had a substance use disorder ($p < 0.05$). Unstably housed women at discharge were also more likely to have used social and inpatient services, and to transition to inpatient rehabilitation ($p < 0.05$). Among baseline characteristics, logistic regression identified unstable housing at admission ($OR = 6.07$) and being single ($OR = 4.01$) as the strongest unique contributors to unstable housing at discharge ($p < 0.05$).

Conclusion: Unstably housed women and single women seem particularly at risk of remaining in precarious living conditions despite accessing integrated care for problems associated with methamphetamine use. Future work should investigate whether stronger partnerships with government and community agencies could be a way forward to help these women attain and maintain stable housing.

Keywords: perinatal substance use, maternal drug use, pregnancy, socioeconomic deprivation, unstable housing, multimodal therapy, methamphetamine use disorder, drug addiction

OPEN ACCESS

Edited by:
Anette Skårner,
University of Gothenburg, Sweden

Reviewed by:
Peter Higgs,
Burnet Institute, Australia
Mei Yang,
Shenzhen Mental Health Centre, China
Jonas Stålheim,
University of Gothenburg, Sweden

***Correspondence:**
Johannes Petzold
johannes.petzold@uniklinikum-dresden.de

†ORCID:
Johannes Petzold
orcid.org/0000-0003-4163-9014
Benjamin Weber
orcid.org/0000-0002-4941-1332
Ulrich S. Zimmermann
orcid.org/0000-0001-7900-4992
Maximilian Pilhatsch
orcid.org/0000-0003-4323-3309

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: *06 March 2022*
Accepted: *05 May 2022*
Published: *27 May 2022*

Citation:
Petzold J, Rehmet L, Weber B, Spreer M, Krüger M, Zimmermann US and Pilhatsch M (2022) Housing Correlates in Pregnant and Parenting Women Using Methamphetamine and Accessing Psychiatric Care. Front. Psychiatry 13:890635. doi: 10.3389/fpsyt.2022.890635

INTRODUCTION

Global methamphetamine markets continue expanding while methamphetamine use has reached epidemic proportions in many parts of the world (1–3). This escalation threatens public health due to the related morbidity, mortality, and criminality (1–3). Methamphetamine use and unintended pregnancies can have detrimental consequences for women and their offspring, such as eclampsia and death (4–8). Newborns with prenatal methamphetamine exposure are at risk for withdrawal symptoms and developmental deficits, which include reduced weight, size, and head circumference (5–8). These children also exhibit more problems in later life, such as signs of attention-deficit hyperactivity disorder at school age (5–7). Pregnant and parenting women who use methamphetamine often struggle with polysubstance use, mental illness, socioeconomic deprivation, and single parenting (8–11). Compared with parents using other substances, parents using methamphetamine are more likely female, unemployed, not in a committed relationship, and without custody of their children (12). Moreover, parenting stress is even higher in methamphetamine-using mothers than fathers (13, 14). Despite the need for prevention and intervention, methamphetamine-using women experience limited pregnancy, pediatric, and mental healthcare (6, 8, 10, 11, 15). Barriers concern the awareness of services and care needs, availability, affordability, logistics, and legal implications regarding substance use and childcare (16, 17). Access is additionally hampered by stigmatizing attitudes toward methamphetamine use, substance use in pregnancy, socioeconomic adversity, and legal system involvement (16, 17). This accumulation of biopsychosocial stressors can fuel a vicious cycle of poor maternal and child health, substance use, adversity, and marginalization (6, 9, 18).

The concept "Mama denk an mich" (Mamadam, "Mommy think of me") was developed to break this cycle by providing low-barrier care across disciplines and settings. Case management and coordination meetings integrate the Psychiatric, Obstetric, and Pediatric Departments at the Dresden University Hospital with child welfare and community substance use services. Care is mainly provided on an outpatient basis to promote psychosocial functioning and well-being in daily life.

Psychiatric care draws on the available evidence and best practice for the management of methamphetamine-related disorders (19). Patients consult with a psychiatrist and/or psychotherapist from several times a week to once a month as needed. Mamadam provides women-only group psychotherapy based on a manual that combines methamphetamine-specific psychoeducation, motivational interviewing, and cognitive behavior therapy (20–23). Hospital social workers partner with community and government agencies to aid patients in finances, work, and housing. Childcare is supported by establishing a crisis plan in case of relapse and by in-home assistance if needed. Supervised random substance screening is employed to promote treatment engagement. Inpatient care is also available, which provides additional group therapies, such as exercise classes, progressive muscle relaxation, occupational therapy, social skills training, and specific therapies for psychiatric comorbidities.

Previous studies described the Mamadam concept in detail and added to the evidence that pregnancy and parenthood provide opportunities to motivate change (13, 19, 24), thereby decreasing substance use and child removal (15, 25–27). Patients could be engaged in outpatient psychiatric treatment over months, but more research is imperative to evaluate and optimize care strategies. Studying housing instability is insightful as it may not only be a consequence (28, 29) but also a cause of substance use and even overdose death (30, 31). Moreover, meeting the basic need for stable housing is essential for effective social and professional reintegration. We thus investigated how housing at discharge from Mamadam was related to health and life circumstances at admission as well as healthcare utilization before, during, and after Mamadam. The goal was to gather information on what interventions may be beneficial and how best to integrate them to prevent and mitigate harms related to methamphetamine and other substance use during pregnancy and parenthood. These findings should inform care initiatives that are urgently needed to counter the impact of the global methamphetamine crisis on women and children.

METHODS

This prospective observational study aimed to identify baseline and treatment correlates of housing in pregnant and parenting women with methamphetamine use disorder according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. We studied all 102 women who accessed psychiatric care within Mamadam since its start in 2016 and left or completed treatment before July 30, 2020. This naturalistic sample included the 73 women whose treatment adherence was previously analyzed (27). Adherence was categorized as early discontinuation (before implementing a care plan), partial completion of the program (late discontinuation), or successful completion (requiring stable abstinence).

Statistics were performed in SPSS 27 (IBM, Armonk, NY, USA), using two-sided tests, a significance level of 0.05, and data on all patients unless stated otherwise. We categorized women depending on whether they had control over their living arrangements at discharge as stably (own apartment, condominium, house) or unstably housed (supported transitional accommodation with children, living in others' homes, homeless). They were compared on baseline characteristics, Mamadam participation, and aftercare. Pearson's chi-square test (or Fisher's exact test when cell sizes were too small) and Bonferroni-adjusted pairwise comparisons were applied for categorical variables. We used Mann-Whitney U tests as histograms, normal quantile-quantile plots, and tests of normality demonstrated that continuous data were not normally distributed.

We quantified associations between variables that differed significantly between groups with the phi coefficient. To identify the variables with the strongest unique contributions to housing at discharge, we built one model with baseline and another with treatment variables. All variables that had complete data and met the assumptions of logistic regression were considered for

forward stepwise selection using the likelihood ratio. Significant variables from these models were entered in a third model to discriminate how much variability of housing stability at discharge was explained by each variable when controlling for the others.

RESULTS

Study Sample and Care Utilization

The naturalistic sample consisted of pregnant ($n = 38$) and/or parenting ($n = 95$) women with problems related to methamphetamine use. Of the 102 women, 79 were stably housed at admission to psychiatric care and 82 at discharge. Living arrangements and changes therein are detailed in **Table 1**. **Table 2** displays baseline characteristics, program participation, and aftercare, stratified by housing at discharge.

Baseline Correlates of Housing at Discharge

Women were more likely unstably housed at discharge when single, unstably housed at admission, living apart from at least one minor, or when the other parent had a substance use disorder ($p < 0.05$). The majority of unstably housed women at discharge had a criminal record (prison sentence in over one-third), whereas almost two-thirds of stably housed patients had no record (prison sentence in one-sixth), yet there was no overall significant difference in criminal system involvement between groups. About 10% of women across groups were employed and about three-fourths had a current psychiatric comorbidity. Groups were also similar in age, being pregnant, being childless, number of minors, years of methamphetamine use, and prior withdrawal program participation ($p > 0.05$).

Treatment Correlates of Housing at Discharge

Unstably housed women at discharge were more likely to have used social and inpatient services, and to transfer to inpatient rehabilitation ($p < 0.05$). Groups were comparable in attendance at individual and methamphetamine-specific group psychotherapies as well as in program adherence and duration ($p > 0.05$).

Associations Between Correlates of Housing at Discharge

Table 3 presents associations among all baseline and treatment variables that differed significantly between stably and unstably housed women at discharge. Being single was significantly related to the other parent having a substance use disorder and trend-level related to unstable housing at baseline. These three baseline characteristics and living apart from at least one minor were each related to one or more variables of higher treatment intensity (accessing social services, inpatient care, inpatient rehabilitation), which in turn were positively intercorrelated ($p < 0.05$).

Predictors of Housing at Discharge

Table 4 lists the unique (net) contributions of selected baseline and treatment variables to housing at discharge (controlled for the other variables in the respective model). Among baseline characteristics (first model), being single and unstably housed predicted unstable housing at discharge ($p < 0.05$). Among treatment variables (second model), entering inpatient care predicted unstable housing at discharge ($p < 0.05$). When these three variables were tested together (third model), being single and unstably housed at baseline retained significance, whereas inpatient care reached trend-level significance.

DISCUSSION

This prospective observational study documents the importance of housing in the complex dynamics between social stressors and treatment response in pregnant and parenting women with problems related to methamphetamine use. Our real-world data have direct implications for clinical practice as we continue developing integrated care for this underserved population.

Baseline Correlates of Housing

Psychiatric comorbidities and social complexities were frequent in our naturalistic sample of pregnant and parenting women, echoing the multiple burdens reported in association with methamphetamine use (19, 24). We previously found that comorbid attention-deficit hyperactivity disorder and depression jeopardized treatment engagement in integrated care (27). Yet in

TABLE 1 | Housing at admission and discharge.

			Housing at discharge				
			Stable	Unstable			
			Own	Supported	Others'	Homeless	Total
Housing at admission	Stable	Own	70	9	0	0	**79**
	Unstable	Supported	4	2	1	0	**7**
		Others'	5	0	5	0	**10**
		Homeless	3	0	1	2	**6**
		Total	**82**	**11**	**7**	**2**	**102**

Depending on whether women had control over their living arrangements, housing was considered stable (own apartment, condominium, house) or unstable (supported transitional accommodation with children, living in others' homes, homeless).

TABLE 2 | Patient characteristics by housing at discharge.

	Housing at discharge		Group differences
	Stable ($n = 82$)	**Unstable ($n = 20$)**	
Baseline			
Age[B]	28.65 ± 5.84	28.90 ± 6.15	$U = 850.50$, $z = 0.26$, $p = 0.797$
Pregnant[B]	39.0	30.0	X^2 (1) = 0.560, $p = 0.454$[C]
Childless[B]	7.3	5.0	X^2 (1) = 0.135, $p = 1.000$[F]
Children[B]	2.06 ± 1.35	2.20 ± 1.54	$U = 846.50$, $z = 0.23$, $p = 0.817$
Mother-child separation ($n = 95$ mothers)	57.9	84.2	X^2 (1) = 4.524, $p = 0.033$[C,*]
Single[B]	45.1	80.0	X^2 (1) = 7.836, $p = 0.005$[C,*]
Stable housing[B]	85.4	45.0	X^2 (1) = 15.001, $p < 0.001$[F,*]
Employed[B]	12.2	10.0	X^2 (1) = 0.075, $p = 1.000$[F]
Criminal record ($n = 97$)			X^2 (2) = 4.134, $p = 0.144$[F]
None	62.8	42.1	
Fine or community service	20.5	21.1	
Prison sentence	16.7	36.8	
Years of regular methamphetamine use ($n = 96$)	6.71 ± 5.90	7.44 ± 6.84	$U = 729.00$, $z = 0.25$, $p = 0.799$
Prior withdrawal program[B]	47.6	65.0	X^2 (1) = 1.957, $p = 0.162$[C]
Current psychiatric comorbidity[#]			
Substance use disorder[B]	57.3	35.0	X^2 (1) = 3.214, $p = 0.073$[C]
Depressive disorder[B]	13.4	15.0	X^2 (1) = 0.034, $p = 1.000$[F]
Personality disorder[B]	17.1	25.0	X^2 (1) = 0.667, $p = 0.521$[F]
Attention-deficit hyperactivity disorder[B]	14.6	5.0	X^2 (1) = 1.342, $p = 0.303$[F]
Any	73.2	80.0	X^2 (1) = 0.395, $p = 0.530$[C]
Any except substance use disorder	41.5	60.0	X^2 (1) = 2.231, $p = 0.135$[C]
Other parent with substance use disorder ($n = 88$)[#]			X^2 (2) = 7.207, $p = 0.026$[F,*]
No	36.6	5.9	+
Abstinent	19.7	17.6	–
Yes	43.7	76.5	+
Program participation			
Adherence			X^2 (2) = 3.491, $p = 0.157$[F]
Early discontinuation[T]	19.5	15.0	
Partial completion	32.9	15.0	
Successful completion[T]	47.6	70.0	
Days[T]	198.38 ± 200.91	178.80 ± 174.06	$U = 783.50$, $z = -0.31$, $p = 0.758$
Inpatient care[T]	15.9	45.0	X^2 (1) = 8.074, $p = 0.008$[F,*]
Methamphetamine-specific group therapy[T]	72.0	70.0	X^2 (1) = 0.030, $p = 0.862$[C]
Individual psychotherapy[T]	14.6	15.0	X^2 (1) = 0.002, $p = 1.000$[F]
Social services[T]	46.3	80.0	X^2 (1) = 7.311, $p = 0.007$[C,*]
Aftercare[†]			
Inpatient rehabilitation[T]	7.3	30.0	X^2 (1) = 7.969, $p = 0.012$[F,*]
Community substance use services[T]	43.9	25.0	X^2 (1) = 2.390, $p = 0.122$[C]

Statistics were performed on data from all women (N = 102) unless stated otherwise, listing group M ± SD or percentages of women within the relevant housing category.

*[B,T] Used in **Table 4** displayed regression models.*

[#] Tobacco use disorder was not recorded.

[†] Not recorded for others, such as primary care physicians, private psychiatrists, or child welfare services.

C, Pearson's chi-square test; F, Fisher's exact test; U, Mann-Whitney U test.

**Significant at $p < 0.05$.*

+/–, significant/non-significant at $p < 0.05$ in Bonferroni-adjusted post-hoc analyses.

contrast to social challenges, psychiatric comorbidities were not significantly related to housing at discharge. As both treatment discontinuation and unstable housing predict substance use (30–32), our studies indicate that psychiatric comorbidities and social challenges are differentially associated with important determinants of treatment success.

Being single may be a key stressor as it predicted unstable housing at discharge even when adjusting for housing at

TABLE 3 | Associations between correlates of housing at discharge.

	Single[B]	Mother-child separation[B]	Unstable housing at baseline[B]	Other parent with substance use disorder[T]	Inpatient care[T]	Social work[T]
Mother-child separation[B]	$r_\phi = 0.030$ $p = 0.771^{C}$					
Unstable housing at baseline[B]	$r_\phi = 0.190$ $p = 0.055^{C}$	$r_\phi = 0.126$ $p = 0.219^{C}$				
Other parent with substance use disorder[B]	$r_\phi = 0.326$ $p = 0.009^{C,*}$	$r_\phi = 0.202$ $p = 0.187^{C}$	$r_\phi = 0.225$ $p = 0.106^{F}$			
Inpatient care[T]	$r_\phi = 0.170$ $p = 0.086^{C}$	$r_\phi = 0.249$ $p = 0.015^{C,*}$	$r_\phi = 0.230$ $p = 0.026^{F,*}$	$r_\phi = 0.202$ $p = 0.191^{F}$		
Social work[T]	$r_\phi = 0.234$ $p = 0.018^{C,*}$	$r_\phi = 0.324$ $p = 0.002^{C,*}$	$r_\phi = 0.133$ $p = 0.180^{C}$	$r_\phi = 0.346$ $p = 0.005^{C,*}$	$r_\phi = 0.399$ $p < 0.001^{C,*}$	
Inpatient rehabilitation[T]	$r_\phi = 0.168$ $p = 0.089^{C}$	$r_\phi = 0.225$ $p = 0.051^{F}$	$r_\phi = 0.313$ $p = 0.005^{F,*}$	$r_\phi = 0.206$ $p = 0.167^{F}$	$r_\phi = 0.548$ $p < 0.001^{F,*}$	$r_\phi = 0.222$ $p = 0.025^{C,*}$

*Associations among baseline (B) and treatment (T) variables that were significantly related to housing at discharge (see **Table 2**). Variables were coded as 0 = no and 1 = yes, except other parent with substance use disorder (0 = no, 1 = abstinent, 2 = yes). Pearson's chi-square (C) and Fisher's exact tests (F) used data from all women (N = 102) unless involving variables with reduced sample sizes as detailed in **Table 2**.*
**Significant at $p < 0.05$.*

TABLE 4 | Logistic regression models with correlates of housing at discharge.

	B (SE)	OR	*p*
First model built by forward stepwise selection of baseline characteristics[B] X^2 (2) = 18.599, $p < 0.001$, Nagelkerke pseudo R^2 = 26.5%			
Single (0 = no, 1 = yes)	1.39 (0.63)	4.01	0.028*
Housing at baseline (0 = stable, 1 = unstable)	1.80 (0.57)	6.07	0.001*
Constant	−2.88 (0.58)		
Second model built by forward stepwise selection of treatment variables[T] X^2 (1) = 7.132, $p = 0.008$, Nagelkerke pseudo R^2 = 10.7%			
Inpatient care (0 = no, 1 = yes)	1.47 (0.54)	4.34	0.007*
Constant	−1.84 (0.32)		
Third model built by entering significant variables from models above X^2 (3) = 21.852, p < 0.001, Nagelkerke pseudo R^2 = 30.7%			
Single (0 = no, 1 = yes)	1.34 (0.65)	3.84	0.037*
Housing at baseline (0 = stable, 1 = unstable)	1.67 (0.58)	5.31	0.004*
Inpatient care (0 = no, 1 = yes)	1.09 (0.60)	2.98	0.068
Constant	−3.14 (0.63)		

*Prediction of housing at discharge (0 = stable, 1 = unstable) from complete data (N = 102) on all tested variables (see superscripts B and T in **Table 2**).*
**Significant at $p < 0.05$.*

admission. This aligns with a study in people injecting substances where a partnered relationship seemed conducive to attaining stable housing (28). Yet substance-using partners are influential in the use of methamphetamine (9, 13), and being single was significantly related to the other parent having a substance use disorder, which predicted unstable housing at discharge as did living apart from children. These data combined with the stresses of single parenting (10, 12–14) indicate that women could greatly benefit from interventions targeted at building relationships. Couple counseling should be offered and cover substance use, family planning, and parenting skills (19).

The majority of unstably housed women at discharge had a criminal record (prison sentence in over one-third), whereas almost two-thirds of stably housed patients had no record (prison sentence in one-sixth). Although there was no overall significant difference in criminal system involvement between these groups, incarceration history was previously associated with an increased likelihood of unstable housing and methamphetamine use (33). Thus, housing may be lost while imprisoned and prison sentences may hamper attaining stable housing. As employment rates were similarly low across stably and unstably housed women at discharge, prison sentences may thwart stable housing by factors other than lost income, such as lost community or additional stigma. Nonetheless, the low levels of employment highlight the general need for vocational education, training, and reintegration.

Treatment Correlates of Housing

Twelve of 23 women who were unstably housed at admission (three of six homeless) achieved stable housing by discharge. Nine women transitioned from their own to supported transitional accommodation with children as they required intensive care that could not otherwise be provided after discharge from Mamadam.

The relations among housing at admission and discharge, being single, the other parent having a substance use disorder, mother-child separation, social work involvement, and inpatient care and rehabilitation show that women in difficult circumstances were more likely to access social and inpatient services, and to transition to inpatient rehabilitation. Stable housing would facilitate the use of outpatient social work to build community relationships, receive home support for childcare, and pursue employment. To deliver on this prospect, stronger partnerships with government and community agencies are needed to provide faster access to public housing and support for independent housing.

Housing at discharge was not significantly associated with adherence to or duration of Mamadam, or with prior withdrawal program participation. Yet less than one-third of unstably housed women at discharge had discontinued Mamadam and almost two-thirds had accessed a withdrawal program, whereas adherence and withdrawal program participation were below 50% in stably housed women at discharge. In mothers with substance use and/or other psychiatric disorders, accessing treatment was related to being single and having a low socioeconomic status (11). However, substance use treatment was inversely associated with attaining stable housing, even after adjustment for relationship status, employment status, and substance use (28). Completion of addiction treatment is associated with abstinence, less crime, and greater employment (32), whereas the relation to housing is mixed (30). These findings collectively suggest that current programs engage socially disadvantaged patients in care but are often not sufficient to improve housing conditions.

Limitations

We used a dichotomous measure of housing stability as more women in supported transitional accommodation with children, living in others' homes, and without housing would have been required to gain insight into potential differences between these living arrangements. The lack of post-discharge data precludes claims regarding potential benefits of transitioning from own to supported transitional housing for some women. Moreover, our care concept and some of our findings (e.g., employment unrelated to housing at discharge) may not be readily transferable to other healthcare systems and communities in different social, financial, or legal contexts.

CONCLUSION

Integrated services promise better care for pregnant and parenting women with problems related to methamphetamine use, yet challenges remain given the complex needs of this population. Single women and unstably housed women are particularly at risk of remaining in precarious living conditions, which threaten to drive them into heavier substance use and socioeconomic deprivation. Future work should consider developing and studying housing and relationship interventions, which may break this downward spiral.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Ethics Committee at the Carl Gustav Carus Faculty of Medicine at the Technische Universität Dresden, Germany. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

UZ, MP, and MS contributed to the development of the care concept. UZ, MP, MS, and BW were members of the care team. MP, UZ, LR, MK, and JP designed the study. UZ, MP, and JP obtained funding. LR, MK, MS, BW, MP, and UZ collected the data. JP analyzed and interpreted the data and wrote the manuscript. All authors contributed to the article and approved the submitted version.

FUNDING

The German Research Foundation (Project Number 402170461, TRR 265) (34) supported this research and paid the article processing charge but was not involved in the conceptualization or conduct of the study, the collection, analysis, interpretation of data, the preparation of the manuscript, or the decision to submit it for publication.

ACKNOWLEDGMENTS

We thank the staff at the psychiatric outpatient department for assistance with data collection and Matthew Belanger for diligent proofreading.

REFERENCES

1. Paulus MP, Stewart JL. Neurobiology, clinical presentation, and treatment of methamphetamine use disorder: a review. *JAMA Psychiatry.* (2020) 77:959–66. doi: 10.1001/Jamapsychiatry.2020.0246
2. Stoneberg DM, Shukla RK, Magness MB. Global methamphetamine trends: an evolving problem. *Int Crim Justice Rev.* (2018) 28:136–61. doi: 10.1177/1057567717730104
3. UNODC. *World Drug Report 2021, Booklet 4 Drug Market Trends: Cocaine Amphetamine-Type Stimulants.* Vienna: United Nations Publication (2021).
4. Admon LK, Bart G, Kozhimannil KB, Richardson CR, Dalton VK, Winkelman TNA. Amphetamine- and opioid-affected births: incidence, outcomes, and costs, United States, 2004–2015. *Am J Public Health.* (2019) 109:148–54. doi: 10.2105/Ajph.2018.304771
5. Dinger J, Hinner P, Reichert J, Rüdiger M. Methamphetamine consumption during pregnancy—effects on child health. *Pharmacopsychiatry.* (2017) 50:107–13. doi: 10.1055/s-0042-122711
6. Perez FA, Blythe S, Wouldes T, McNamara K, Black KI, Oei JL. Prenatal methamphetamine- impact on the mother and child—a review. *Addiction.* (2021). doi: 10.1111/add.15509
7. Harst L, Deckert S, Haarig F, Reichert J, Dinger J, Hellmund P, et al. Prenatal methamphetamine exposure: effects on child development–a systematic review. *Dtsch Arztebl Int.* (2021) 118:313–9. doi: 10.3238/Arztebl.M2021.0128
8. Schmidt U, Capek C, Birdir C, Erfurt C, Nitzsche K. Crystal und schwangerschaft – erste ergebnisse einer retrospektiven studie zum

schwangerschafts- und geburtsverlauf methamphetamin-konsumierender frauen in sachsen. *Z Geburtshilfe Neonatol.* (2019) 223:221–9. doi: 10.1055/a-0831-3642
9. O'Connor A, Harris E, Hamilton D, Fisher C, Sachmann M. The experiences of pregnant women attending a specialist service and using methamphetamine. *Women Birth.* (2021) 34:170–9. doi: 10.1016/j.Wombi.2020.01.011
10. Wouldes TA, LaGasse LL, Derauf C, Newman E, Shah R, Smith LM, et al. Co-morbidity of substance use disorder and psychopathology in women who use methamphetamine during pregnancy in the US and New Zealand. *Drug Alcohol Depend.* (2013) 127:101–7. doi: 10.1016/j.Drugalcdep.2012.06.016
11. Stevens S, Rogers J, Dansereau L, DellaGrotta S, Lester BM, Wouldes TA, et al. Prospective study of service use in the year after birth by women at high risk for antenatal substance use and mental health disorders. *Int J Ment Health Addict.* (2019) 19:1005–18. doi: 10.1007/S11469-019-00207-W
12. Carlson BE, Williams LR, Shafer MS. Methamphetamine-involved parents in the child welfare system: are they more challenging than other substance-involved parents? *J Public Child Welf.* (2012) 6:280–95. doi: 10.1080/15548732.2012.683361
13. Dyba J, Moesgen D, Klein M, Leyendecker B. Methamphetamine use in German families: parental substance use, parent-child interaction and risks for children involved. *Subst Use Misuse.* (2019) 54:583–91. doi: 10.1080/10826084.2018.1528459
14. Semple SJ, Strathdee SA, Zians J, Patterson TL. Methamphetamine-using parents: the relationship between parental role strain and depressive symptoms. *J Stud Alcohol Drugs.* (2011) 72:954–64. doi: 10.15288/Jsad.2011.72.954
15. Dinger J, Näther N, Wimberger P, Zimmermann US, Schmitt J, Reichert J, et al. Increasing consumption of crystal meth in saxony and its risks for mother and child - experiences at a level I perinatal center from a pediatric viewpoint. *Z Geburtshilfe Neonatol.* (2017) 221:73–80. doi: 10.1055/s-0043-102953
16. Cumming C, Troeung L, Young JT, Kelty E, Preen DB. Barriers to accessing methamphetamine treatment: a systematic review and meta-analysis. *Drug Alcohol Depend.* (2016) 168:263–73. doi: 10.1016/j.Drugalcdep.2016.10.001
17. Holt K, French G. Exploring the motherhood experiences of active methamphetamine users. *Crime, Law and Social Change.* (2020) 73:297–314. doi: 10.1007/S10611-019-09862-5
18. Wakeman B, Kremer M, Schulkin J. The application of harm reduction to methamphetamine use during pregnancy: a call to arms. *Am J Obstet Gynecol MFM.* (2021) 3:100418. doi: 10.1016/j.Ajogmf.2021.100418
19. Braunwarth W-D, Christ M, Dirks H, Dyba J, Härtel-Petri R, Harfst T, et al. *S3 Practice Guideline Methamphetamine-Related Disorders*. 1st ed. Berlin: Agency for Quality in Medicine (2016).
20. Groß C, Schützwohl M, Mayer-Pelinski R, Hasler H, Kirchner T, Scheck A, et al. "CrystalClean"—a German-language manual for qualified detoxification and motivation treatment in cases of "crystal meth" dependency—feasibility and acceptance. *Psychiatr Prax.* (2020) 47:22–8. doi: 10.1055/a-1003-5148
21. Petzold J, Weber B, Bassett TR, Bauer M, Bernhardt N, Gross C, et al. Effectiveness of the first German-language group psychotherapy manual to accompany short-term treatment in methamphetamine dependence. *Front Psychiatry.* (2020) 11:130. doi: 10.3389/Fpsyt.2020.00130
22. Bernhardt N, Petzold J, Groß C, Scheck A, Pooseh S, Mayer-Pelinski R, et al. Neurocognitive dysfunctions and their therapeutic modulation in patients with methamphetamine dependence: a pilot study. *Front Psychiatry.* (2020) 11:581. doi: 10.3389/Fpsyt.2020.00581
23. Pilhatsch M, Pooseh S, Junke A, Kohno M, Petzold J, Sauer C, et al. Probabilistic reversal learning deficits in patients with methamphetamine use disorder-a longitudinal pilot study. *Front Psychiatry.* (2020) 11:588768. doi: 10.3389/Fpsyt.2020.588768
24. Grigg J, Manning V, Arunogiri S, Volpe I, Frei M, Phan V, et al. *Methamphetamine Treatment Guidelines: Practice Guidelines for Health Professionals*. 2nd ed. Richmond, Victoria: Turning Point (2018).
25. Dinger J, Reichert J. "Mama Denk' an Mich" (MAMADAM) - ein interdisziplinäres und multiprofessionales hilfsangebot für mutter und kind mit methamphetamin-konsum während der schwangerschaft. *Ärzteblatt Sachsen.* (2018) 8:331–7.
26. Groß C, Hahn S, Spreer M, Behrendt S, Dinger J, Reichert J, et al. Mama Denk' an Mich (MAMADAM)—ein multimodales therapieprogramm für suchtkranke schwangere, mütter und väter im rahmen der psychiatrischen institutsambulanz. *SUCHT.* (2018) 64:97–108. doi: 10.1024/0939-5911/A000533
27. Petzold J, Spreer M, Krüger M, Sauer C, Kirchner T, Hahn S, et al. Integrated care for pregnant women and parents with methamphetamine-related mental disorders. *Front Psychiatry.* (2021) 12:762041. doi: 10.3389/Fpsyt.2021.762041
28. Palepu A, Marshall BD, Lai C, Wood E, Kerr T. Addiction treatment and stable housing among a cohort of injection drug users. *PLoS ONE.* (2010) 5:E11697. doi: 10.1371/Journal.Pone.0011697
29. Shearer RD, Howell BA, Bart G, Winkelman TNA. Substance use patterns and health profiles among US adults who use opioids, methamphetamine, or both, 2015-2018. *Drug Alcohol Depend.* (2020) 214:108162. doi: 10.1016/j.Drugalcdep.2020.108162
30. Austin AE, Shiue KY, Naumann RB, Figgatt MC, Gest C, Shanahan ME. Associations of housing stress with later substance use outcomes: a systematic review. *Addict Behav.* (2021) 123:107076. doi: 10.1016/j.Addbeh.2021.107076
31. Shokoohi M, Karamouzian M, Sharifi H, Rahimi-Movaghar A, Carrico AW, Hosseini Hooshyar S, et al. Crystal methamphetamine use and its correlates in women engaged in sex work in a developing country setting. *Drug Alcohol Depend.* (2018) 185:260–5. doi: 10.1016/j.Drugalcdep.2017.12.025
32. Brorson HH, Ajo Arnevik E, Rand-Hendriksen K, Duckert F. Drop-out from addiction treatment: a systematic review of risk factors. *Clin Psychol Rev.* (2013) 33:1010–24. doi: 10.1016/j.cpr.2013.07.007
33. Anderson-Carpenter KD, Fletcher JB, Reback CJ. Associations between methamphetamine use, housing status, and incarceration rates among men who have sex with men and transgender women. *J Drug Issues.* (2017) 47:383–95. doi: 10.1177/0022042617696917
34. Heinz A, Kiefer F, Smolka MN, Endrass T, Beste C, Beck A, et al. Addiction research consortium: losing and regaining control over drug intake (ReCoDe)-from trajectories to mechanisms and interventions. *Addict Biol.* (2020) 25:E12866. doi: 10.1111/adb.12866

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers | Frontiers in Psychiatry

BRIEF RESEARCH REPORT
published: 02 June 2022
doi: 10.3389/fpsyt.2022.887660

Gender, Addiction, and Removal of Children Into Care

Lynda Russell, Ruchika Gajwani, Fiona Turner and Helen Minnis*

Mental Health and Wellbeing, Institute of Health and Wellbeing, University of Glasgow, Glasgow, United Kingdom

Introduction: Parental addiction can result in harm to children and removal of children by the Local Authority. Less is known about the impact of removal of children on their parents and whether gender has a role in this process.

Methods: Data on 736 service users were obtained from the caseloads of 8 nurses and 12 social care workers from an Alcohol and Drug Recovery Service in Scotland. Gender differences in prevalence/patterns of child removal, associations between child removal and parental factors and the relationship between removal and suicidality were examined.

Results: Mothers were more likely to have had one or more children removed compared to fathers (56.6 vs. 17.7%; $p < 0.001$) and were more likely to have a series of individual child removals (22.5 vs. 4.3%; $p = 0.014$). In addition to female gender, younger age, drug use, mental health and suicide attempts were also associated with child removal. Mothers who had children removed and women who were not mothers were more likely to have made an attempt to end their lives than women who had children but had not had them removed.

Conclusion: Gender differences were apparent in prevalence and patterns of child removal. Mothers were six times more likely to have children removed compared to fathers. Child removal occurred alongside other risk factors suggesting that families need holistic support for their multiple areas of need. Services should be aware of the link between child removal and suicide and provide additional support to mothers during and after removal.

Keywords: addiction, mothers, child removal, suicide, gender

OPEN ACCESS

Edited by:
Sarah Fox,
Manchester Metropolitan University,
United Kingdom

Reviewed by:
Nancy Kepple,
University of Kansas, United States
Martha Canfield,
King's College London,
United Kingdom

****Correspondence:***
Lynda Russell
lynda.russell@glasgow.ac.uk

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: *01 March 2022*
Accepted: *28 April 2022*
Published: *02 June 2022*

Citation:
Russell L, Gajwani R, Turner F and Minnis H (2022) Gender, Addiction, and Removal of Children Into Care. Front. Psychiatry 13:887660. doi: 10.3389/fpsyt.2022.887660

INTRODUCTION

Parental addiction[1] has been associated with harm to children (1–3). In a Scottish context, drug or alcohol addiction, by one or both parents, was present in over half of the Significant Case Reviews (carried out when a child has died or been significantly harmed) between 2012 and 2015 and present in all cases where there was a death of an infant or pre-school child (4). Similar findings regarding risk and mortality have been reported in other countries (5–7). A follow up study in Glasgow, Scotland, of babies born to mothers with addiction issues found that 83% of children were discharged from the maternity unit to parental care, but 87% of these children were later taken into care at least once before the age of 10–12 years. Only 41% were in the care of their birth parent/s at 10–12 years of age (8).

[1]Parental addiction includes the terms parental substance abuse and misuse and covers both alcohol and drugs.

Harm to children may be a direct result of exposure to substances prenatally, while other harms may be related to the multiple risk factors also associated with parental addiction including parental mental health issues (3, 9–11); domestic abuse (3, 9, 11, 12); poverty (3, 10, 13) and inadequate housing (11). These factors overlap in many situations to present a cumulative risk to parents' ability to adequately care for children (11, 14–16). Parents with addiction issues are therefore more likely to have their children removed from their care by social work services due to risk of harm or harm already caused (17, 18).

Not all child removals[2] are to permanent placements. Almost a third of children taken into care in Scotland were returned to the care of their birth parents, with the average time to reunification being just over 9 months (19). Parental wellbeing is linked to child wellbeing (18), for example, parental stress and responsiveness have been associated with child cognitive development and prosocial behavior (20) and a recent systematic review found a preliminary link between parental mental health and wellbeing and intergenerational transmission of attachment but was unable to identify the mechanisms for this relationship (21).

However, removal of children also has the potential for harm, which may undermine the chances of reunification or increase the risk that children will be removed from their parents' care in the future. Parents and birth families report experiencing distress and a deterioration in their mental health following the removal of children. One study found roughly two thirds of birth parents and families reported symptoms or a diagnosis of depression which they felt was triggered or exacerbated by the removal, 26% experienced suicidal thoughts following the removal and roughly half of those reported an attempt to end their lives (22). In addition to reporting increased rates of suicide attempts and self-harm (23, 24), relapse or an increase in drug and alcohol use is common following removal (22, 23, 25, 26). Parents also reported experiencing strong negative emotions including anger, agitation, anxiety and sadness (23, 27–29).

In addition, a grief response is also experienced following the removal of children (26, 30–32). Disenfranchised grief is defined as "the experience of grief that is not openly acknowledged, socially validated or publicly observed" (33) and has been applied to mothers with children in the care system due to their grief response at the loss, the stigma of having a child removed and their own role in the removal (26). The lack of acknowledgment of this loss results in a lack of support or identifiable referral pathways for service input and can also lead to mothers developing beliefs about being undeserving of support (25). Birth mothers have reported feeling that their grief was not considered "legitimate" (23). While mothers who relinquished children experienced more grief symptoms than women whose child died and their grief reactions were more likely to become chronic and prolonged due to an inability to resolve their grief (34).

Low self-esteem is reported consistently following removal of children (22, 27). Mothers who have children removed have been described as "maternal outcasts"; mothers whose experiences fall outside of the normal expectations of motherhood (35). Mothers who have had children removed struggle with two main aspects of their identity—firstly, dealing with the stigma and shame attached to the removal of their child and their threatened identity as a "good parent" and secondly, difficulty maintaining an identity as a mother without a child in their care (26). Mothers with an addiction are also dealing with the additional stigma attached to having an addiction while being pregnant or as a mother (17, 36, 37).

Mothers who have had children removed describe the process and experience of removal as traumatic (23, 29). They describe the process as adversarial; with a focus on their weaknesses and little recognition of any strengths or positives in their parenting or relationship with their children (27). Parents reported feeling angry, humiliated and betrayed during the removal process (23, 26, 27).

Mothers with addiction issues are more likely than fathers to be primary carers (38) therefore they are more likely to experience removal of children and may be at greater risk of these subsequent issues following removal. In addition, service users in addiction and recovery services are predominately male (39) so services may not be focused on or aware of gender-specific issues that are more likely to have an impact on women, such as parenting issues or the impact of child removal into care (17, 39, 40). Exploring the impact of gender on child removal and associated factors could lead to increased understanding, improved mental health and reduced suicidality in women attending addiction services, new service developments and improvements in service delivery, especially for those women who are mothers.

We aimed to examine whether there were gender differences in the prevalence and patterns of child removal (i.e., individually or sibling groups) from parents, to examine the associations between child removal and parental factors (gender, age, substance use profile, mental health issues, and suicide attempts) and the relationship between removal and suicidality in parents attending an Alcohol and Drug Recovery Service in Scotland.

MATERIALS AND METHODS

Procedure

This study was conducted within one sector of an Alcohol and Drug Recovery Service in Glasgow, Scotland with roughly 3,000 active service users. To access the service individuals need to have moderate to severe addiction issues and complexity or risk (such as physical or mental health issues, childcare, criminal justice involvement).

Data were gathered on ∼25% of randomly selected service users as detailed in **Supplementary Table 1**. Due to the high levels of disengagement from the service, staff were randomized rather than service users and 100% of staff provided a copy of their caseload. The Research and Innovation Department advised that this study did not need to go to ethics committee due to the use of routinely collected patient data. Therefore, the study was registered with and approved by the Alcohol and Drug Recovery Service Clinical Effectiveness Group. Service

[2]Child removal refers to children removed from their parents and placed in alternative care by the Local Authority and does not include informal agreements.

users consent at assessment that their routinely collected data can be used anonymously for research and audit purposes.

Staff were randomly selected in June 2015 and data were collected from electronic records from June 2015 to June 2017. Electronic records included the Scottish Morbidity Record 25 (SMR25), which are compulsory data returns completed at assessment (Version A) and annually (Version B) in Scottish Alcohol and Drug Recovery Services, and clinical case notes. Staff interviews were conducted between September 2015 and June 2017. A proforma was created for each format (SMR25, case notes and interviews) for data collection and categorization. Initially the SMR25 forms were reviewed, then the clinical case notes. Once these were completed for the full caseload, interviews were arranged with staff members. Case notes and staff interviews allowed for the cross-checking of the SMR25 data and collecting any missing data.

Data Collection

Data were collected under the following headings: (1) Service user characteristics; (2) Child characteristics; (3) Mental health; and (4) Suicide.

(1) Service user characteristics
SMR25—Gender, age, ethnicity, substance use profile (treatment provided for drugs only; alcohol only; alcohol and drugs).
Case notes—Used for missing data.

(2) Child characteristics
SMR25—Number of children, number of children removed by Local Authority.
Case notes—Missing data and pattern of removal (one child or all children at one time; two groups or a group and a single child removed at different times; series of individual removals).
Staff interviews—Used for missing data.

(3) Mental health
SMR25—Reviewed questions on current or history of mental health issues and prescribed medication for mental health issues.
Case notes—Reviewed for any mention of mental health diagnosis, contact with mental health services, requests for mental health assessment or a referral to mental health services, reported use of psychotropic medication, inpatient admissions to mental health units/wards.
Staff interviews—Asked if service user had current or history of mental health issues.

(4) Suicide
SMR25—Reviewed question on ever attempted suicide.
Case notes—Reviewed for any mention of suicide attempts.
Staff interviews—Asked if service user had ever attempted to take their own life.

Statistical Analysis

Data analysis using SPSS (version 28.0.0.0) was conducted to explore any differences between genders in demographic factors and in prevalence and patterns of child removal. Binary logistical regression was conducted to examine risk factors associated with child removal. Of the 736 service users selected for the study, parents who had no children removed ($n = 287$) were compared with parents who had experienced removal of children ($n = 158$). Factors examined were age, gender, substance use profile, mental health issues and suicide attempts. Ethnicity was excluded due to the lack of variability in this sample. The analysis was then repeated for each gender. Chi-squared analysis was used to further explore the relationship between suicidality and child removal.

TABLE 1 | Demographic information.

Demographic factors	Females ($N = 250$) N (%)	Males ($N = 486$) N (%)	Total Sample ($N = 736$) N (%)
Age*			
Mean (years)	40.3	44.1	42.8
Range (years)	15–78	21–78	15–78
Substance use profile			
Drugs only	144 (57.6)	274 (56.4)	418 (56.8)
Drugs and alcohol	66 (26.4)	105 (21.6)	171 (23.2)
Alcohol only	40 (16)	107 (22)	147 (20)
Current or history of mental health issues*			
Yes	176 (70.4)	236 (48.6)	412 (56)
History of suicide attempts*			
Yes	116 (46.4)	100 (20.6)	216 (29.3)

Indicates significant difference between genders (age $p < 0.001$; mental health $p < 0.001$; suicide $p < 0.001$).

RESULTS

Descriptive

The interviews and caseload reviews of the 8 nurses and 12 social care workers produced data on 736 (∼24.5%) of service users. **Table 1** illustrates the demographic information for the total sample plus each gender. The sample was 66% male and 97% White Scottish. Substance use profiles were similar across genders, but women were significantly younger and more likely to have a current or history of mental health issues and suicide attempts.

Prevalence and Patterns of Child Removal

Data were analyzed to investigate the prevalence of removal of children. Patterns of removal (one episode of a single child or a sibling group; two removals of sibling groups or a sibling group and an individual child at a separate time; or repeated individual removals) were also analyzed and are reported in **Table 2**.

There was a significant difference in prevalence between genders with removal being more likely from mothers than fathers. Mothers had greater number of children removed than fathers. There was also a significant difference in removal patterns with mothers being more likely to experience repeated individual removals.

TABLE 2 | Prevalence and patterns of child removal.

Removal	Mothers (*N* = 196) *N* (%)	Fathers (*N* = 266) *N* (%)	All parents (*N* = 462) *N* (%)
Children removed*			
Median	2	1	1
Range	0–6	1–4	1–6
One episode of removal (child or sibling group)	73 (65.8)	35 (74.5)	108 (68.4)
Two episodes of removals involving groups	4 (3.6)	4 (8.5)	8 (5.1)
Series of removals of individual children*	25 (22.5)	2 (4.3)	27 (17.1)
Prevalence*	111 (56.6)	47 (17.7)	158 (34.2)

**Indicates significant difference between genders (children removed p < 0.001; pattern p ='0.014; prevalence p < 0.001).*

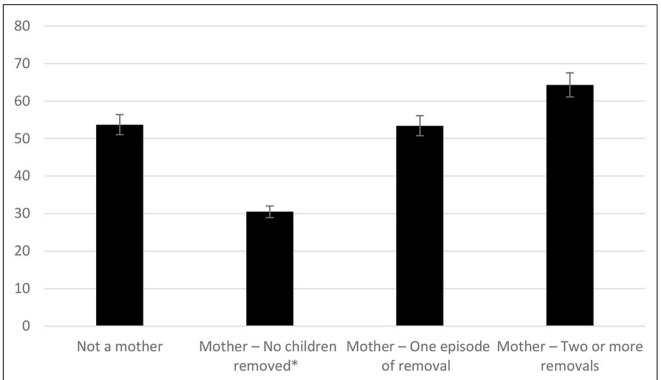


FIGURE 1 | Prevalence of suicide attempts (%) across different removal groups in mothers. *Indicates significant difference between groups ($p = 0.003$).

TABLE 3 | Factors associated with the removal of children*.

Factors	*B*	S.E.	Wald	df	*p*	OR	95% C.I.
Age	−0.06	0.01	20.76	1	<0.001	0.95	0.92–0.97
Gender	1.78	0.22	66.58	1	<0.001	5.91	3.85–9.05
Substance use	0.78	0.28	7.68	1	0.006	2.19	1.26–3.8
Mental health issues	0.51	0.21	6.11	1	0.013	1.66	1.11–2.49
Suicide attempts	1.06	0.21	25.13	1	<0.001	2.89	1.91–4.38

**Each association takes the other factors into account.*

Child Removal and Relationships With Age, Gender, Substance Use, Mental Health, and Suicide Attempts

Table 3 illustrates the odds ratios for the associations between each factor and child removal.

Parental age was significantly negatively associated with removal and with each increasing year parents were less likely to have their child or children removed. Mothers were nearly six times more likely than fathers to experience removal. Parents with drug or drug and alcohol addictions were more than twice as likely to experience removal than those with only alcohol addictions. Parents with mental health issues were nearly 70% more likely to have children removed and parents who had attempted suicide were nearly three times more likely to have children removed.

To examine the impact of gender on removal, the analysis was repeated separately for each gender. For women, younger age, drug/drug and alcohol use, mental health issues and suicide attempts continued to be significantly associated with child removal. No factors were significantly associated with child removal in fathers.

To further explore the relationship between suicidality and child removal, chi-squared analysis compared rates of suicidality across removal groups (not a mother, mother no removals, mother one episode of removal, mother more than one episode of removal). Due to the small number of group removals; data were recategorised to one episode of removal or more than one episode of removal. **Figure 1** highlights the increase in prevalence of suicide attempts as the number of child removals increases. Mothers who had not experienced removal were significantly less likely to have attempted suicide than women who were not mothers, and mothers who had experienced removal.

DISCUSSION

There were stark gender differences found in our study when it came to prevalence and patterns of child removal. Women make up 34% of the service but 78% of these women are mothers while 55% of men were fathers. Women were more likely to be parents than men and more than half of female service users who were mothers had one of more of their children removed compared with less than a fifth of fathers. Mothers were almost six times more likely to experience removal than fathers. Some of which may be explained by the high rates (∼92%) of female-headed single parent families in Scotland (41). It is also important to note that while the majority of removals across both genders involved a single episode of removal, some of these parents are still of reproductive age with the potential to have further children and experience further removals.

Previous research has shown that women are more likely to have their children removed than fathers, even when fathers are perpetrators of similar levels of abuse or neglect (42). Women using addiction and recovery services report experiencing barriers accessing services and having additional needs related to their family and carer responsibilities, relationships, and mental health issues (39, 43). When caring for children, women are more likely to experience isolation due to higher rates of domestic and interpersonal abuse which results in less support with parenting (44, 45). There are recommendations that gender specific issues should be acknowledged in addiction and recovery services including the need for single gender support groups, interventions related to trauma, relationships and parenting and the provision of childcare (17, 43, 46). Our findings add further support to the recommendations for the provision of childcare

and parenting interventions with the high rates of women in this service having children and concerns about parenting and risk due to the prevalence of child removal. Foster care provided by Glasgow City Council Social Work costs roughly £500 per child/week and is more expensive when provided by external providers (8). Therefore, providing parenting interventions has the potential not only to reduce costs but also to reduce risk and save lives of women and their children.

The lack of awareness and acknowledgment of gender specific issues on the part of staff may result in mothers receiving treatment for their addiction without consideration of how the experience of being a mother, their feelings about the impact of their addiction on their children and the impact of removal of children may be linked to their recovery, or lack of. Indeed, we found a significant relationship between removal of children and suicidality. If services fail to acknowledge or ask about child removal, then they are constantly failing women with addiction issues by using an individualized rather than a family focused approach which risks excluding the most vulnerable women and their families and perpetuates further harm. Therefore, we recommend that services ask all female service users about children and child removal and do not just focus on current children in their care. While current child information is essential for child protection and welfare, the links found between child removal and suicide mean any information related to child removal needs to be included as part of the mother's risk assessment and treatment plan. This may also highlight if additional support is needed during and after removal or at significant dates such as date/s of removal and children's birthdays. Support may involve attendance at meetings with the Local Authority, referrals for mental health treatment, supporting women to make and accompanying them to appointments and encouragement to engage with peer recovery support groups. In addition, staff should also monitor for change in frequency or pattern of drug/alcohol use, mood, increase in suicidality or self-harm and withdrawal from usual routines or support systems as this might indicate increased risk.

As this is a cross-sectional study, we cannot infer the direction of causality: women with more severe mental health issues and greater suicidality might be more likely to have their children removed, but it is also possible that suicide attempts followed removal of children. Future longitudinal studies will be required to evidence this, but the link underscores the vital need to understand the relationship between parent factors and child factors if we are to better support recovery from addiction and the wellbeing of children.

This study identified a group of parents who had multiple children individually removed from their care; who were more likely to be mothers than fathers. Previous research has also indicated that mothers are more likely to experience repeated individual removals (35, 47). Our study identified the group at the highest risk of having their children removed as younger women who had drug and mental health issues and who had attempted to take their own lives: this supports previous findings linking younger maternal age to risk of repeated removals (47) and younger age, mental health issues and substance use with involvement in care proceedings (14).

Stigma may have a role in explaining why drug use, as opposed to alcohol use, was a risk factor for removal. Alcohol use is more socially acceptable (48) and risk to children from alcohol might therefore attract less stigma than drug use despite the fact that prenatal alcohol use is associated with more harm than prenatal drug use (49). Women report experiencing, or perceiving they experience, greater stigma than men due to their addiction issues especially when mothers or pregnant (17, 39, 50, 51). The fear of increased stigma and concerns about the removal of children can act as a barrier to pregnant women or mothers accessing addiction and recovery services (51) which delays treatment, placing these women and their children at increased risk of harm.

These findings on removal risk factors support previous research indicating that parental addiction commonly occurs within a constellation of other risk factors (14, 16) that are cumulative (15, 16). This complexity suggests that interventions aimed at reducing harm to children by focusing solely on parental addiction may not improve outcomes and may actually worsen outcomes. Instead, we suggest a public health approach is needed focusing on early intervention with high-risk families, taking a holistic view to target the multiple areas of support needed by these families and the cyclical effects that may occur when addiction affects child outcomes, which further affects parental mental health and the success of addiction and recovery services in improving adult outcomes. The divide between social work, adult mental health and children's health services makes implementation science challenging and we need to bridge the gap between these services through partnership working. We suspect this would be viewed as challenging by services but there are examples of good partnership working which acknowledge the complexity, challenges and benefits that this style of working brings (52).

Due to engagement issues the sample was obtained by randomly sampling staff rather than service users. Hundred percent of staff provided a copy of their caseload. A strength of this study is the sample size and its representativeness of the wider service. It also includes service users at all stages of treatment from assessment onwards rather than just those who completed treatment. These findings are likely to be generalizable to other addiction and recovery services but may not be fully generalizable to other geographical areas, especially those with greater ethnic diversity. In addition, this sample may not be representative of parents with addiction issues who are not engaged with services; such as parents who do not meet the criteria for the service due to milder levels of addiction issues, including those who are engaging with community organizations such as 12 step groups or third sector organizations, and parents who are actively trying to avoid engaging with services. Another limitation is the use of self-report information and routinely collected data about child removal and mental health issues as this may be underreported or minimized; although some of this data was corroborated by health and social work records.

Because only one researcher was given permission to access the data, no reliability checking by a second rater was possible. Additionally, data was only accessible from parent's records and not their children's. As a result, it was not possible to assess if parents were primary carers before removal occurred.

Therefore, our data on parents who have experienced removal may include a subgroup of parents who were not primary carers prior to removal. Also, it was not always possible to access information on when children were removed. While we were able to collect data on quantity and frequency of alcohol and/or drug use at the time of data collection, this may not be an accurate reflection of their addiction at the time of removal. Therefore, we categorized service users depending on whether they were receiving treatment for drug use only, alcohol use only or drug and alcohol use. We collected data on suicide attempts and suicidal behavior may be underrepresented if service users did not disclose attempts to end their life to their care manager. Similarly, the data does not capture other risk markers such as self-harm and recurrent suicidal ideation.

CONCLUSION

We have shown that mothers with addiction issues are six times more likely to have their children removed than fathers and these mothers are significantly more likely to have made attempts to end their lives. We have evidenced the complexity of the relationship between parental factors and the removal of children from parental care, implicating the mental health and suicidality of parents in addiction and recovery services. This makes it clear that these findings have implications for both health and social care services and highlight the importance and value of partnership working. This is an urgent issue with has an impact on mortality, wider society, and children's life chances.

While it is clear that addiction of parents can have a serious effect on children and result in the removal of children, the removal of children is having a serious effect on parents, which may in turn further exacerbate their addiction and further affect children who may return to their care and/or any future children they might have. This cyclical process is in dire need of further investigation, particularly qualitative work with parents in addiction and recovery services to better understand how unmet needs and child removal are affecting both parents and children.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

Ethical approval was not provided for this study on human participants because data was collected from routinely collected data. NHS GG&C R&I department confirmed that NHS Ethics was not needed and recommended review by NHS Clinical Effectiveness Committee who provided approval. The participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

LR conducted the acquisition, analysis, and interpretation of data for the work. LR, RG, FT, and HM made substantial contributions to the conception or design of the work, drafting the work or revising it critically for important intellectual content, provided approval for publication of the content, and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All authors contributed to the article and approved the submitted version.

FUNDING

This work was supported by University of Glasgow.

ACKNOWLEDGMENTS

Many thanks to the support of the staff and management of NHS Greater Glasgow and Clyde Alcohol and Drug Recovery Services.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2022.887660/full#supplementary-material

REFERENCES

1. Harwin J, Alrouh B, Broadhurst K, McQuarrie T, Golding L, Ryan M. Child and parent outcomes in the london family drug and alcohol court five years on: building on international evidence. *Int J Law Policy Family*. (2018) 32:140–69. doi: 10.1093/lawfam/eby006
2. Grant T, Huggins J, Graham JC, Ernst C, Whitney N, Wilson D. Maternal substance abuse and disrupted parenting: distinguishing mothers who keep their children from those who do not. *Child Youth Serv Rev*. (2011) 33:2176–85. doi: 10.1016/j.childyouth.2011.07.001
3. Taplin S, Mattick RP. The nature and extent of child protection involvement among heroin-using mothers in treatment: high rates of reports, removals at birth and children in care. *Drug Alcohol Rev*. (2015) 34:31–7. doi: 10.1111/dar.12165
4. Inspectorate C. Learning from significant case reviews in Scotland: a retrospective review of relevant reports completed in the period between 1 April 2012 and 31 March 2015. In: *Communications*, editor Dundee. (2016).
5. Wolfe EL, Davis T, Guydish J, Delucchi KL. Mortality risk associated with perinatal drug and alcohol use in California. *J Perinatol*. (2005) 25:93–100. doi: 10.1038/sj.jp.7211214
6. Finkelstein Y, Macdonald EM, Gonzalez A, Sivilotti MLA, Mamdani MM, Juurlink DN, et al. Overdose risk in young children of women prescribed opioids. *Pediatrics (Evanston)*. (2017) 139:e20162887. doi: 10.1542/peds.2016-2887
7. Fang S-Y, Huang N, Tsay J-H, Chang S-H, Chen C-Y. Excess mortality in children born to opioid-addicted parents: a national register study in Taiwan. *Drug Alcohol Depend*. (2018) 183:118–26. doi: 10.1016/j.drugalcdep.2017.10.015

8. Mitchell J, Mactier H. Accommodation outcomes for children of drug-misusing women. *Arch Dis Child.* (2021) 106:80–2. doi: 10.1136/archdischild-2018-316440
9. Anda RF, Whitfield CL, Felitti VJ, Chapman D, Edwards VJ, Dube SR, et al. Adverse childhood experiences, alcoholic parents, and later risk of alcoholism and depression. *Psychiatric Serv.* (2002) 53:1001–9. doi: 10.1176/appi.ps.53.8.1001
10. Canfield M, Radcliffe P, Marlow S, Boreham M, Gilchrist G. Maternal substance use and child protection: a rapid evidence assessment of factors associated with loss of child care. *Child Abuse Negl.* (2017) 70:11–27. doi: 10.1016/j.chiabu.2017.05.005
11. Canfield M, Norton S, Downs J, Gilchrist G. Parental status and characteristics of women in substance use treatment services: analysis of electronic patient records. *J Subst Abuse Treat.* (2021) 127:108365. doi: 10.1016/j.jsat.2021.108365
12. Manning V, Best DW, Faulkner N, Titherington E. New estimates of the number of children living with substance misusing parents: results from UK national household surveys. *BMC Public Health.* (2009) 9:377. doi: 10.1186/1471-2458-9-377
13. Velleman R, Templeton L. Understanding and modifying the impact of parents' substance misuse on children. *Adv Psychiatr Treatm.* (2007) 13:79–89. doi: 10.1192/apt.bp.106.002386
14. Griffiths LJ, Johnson RD, Broadhurst K, Bedston S, Cusworth L, Alrouh B, et al. Maternal health, pregnancy and birth outcomes for women involved in care proceedings in Wales: a linked data study. *BMC Preg Childbirth.* (2020) 20:697. doi: 10.1186/s12884-020-03370-4
15. Larrieu JA, Heller SS, Smyke AT, Zeanah CH. Predictors of permanent loss of custody for mothers of infants and toddlers in foster care. *Infant Ment Health J.* (2008) 29:48–60. doi: 10.1002/imhj.20165
16. Patwardhan I, Hurley KD, Thompson RW, Mason WA, Ringle JL. Child maltreatment as a function of cumulative family risk: findings from the intensive family preservation program. *Child Abuse Negl.* (2017) 70:92–9. doi: 10.1016/j.chiabu.2017.06.010
17. Simpson M, McNulty J. Different needs: women's drug use and treatment in the UK. *Int J Drug Policy.* (2007) 19:169–75. doi: 10.1016/j.drugpo.2007.11.021
18. Howe D, MyiLibrary. *Child Abuse and Neglect: Attachment, Development, and Intervention*. Basingstoke, Hampshire; New York, NY: Palgrave Macmillan (2005).
19. Biehal N, Cusworth L, Hooper J, Whincup H, Shapira M. *Permanently Progressing? Building Secure Futures for Children in Scotland Pathways to Permanence for Children Who Become Looked After in Scotland Stirling.* Stirling: University of Stirling (2019).
20. Ward KP, Lee SJ. Mothers' and fathers' parenting stress, responsiveness, and child wellbeing among low-income families. *Child Youth Serv Rev.* (2020) 116:105218. doi: 10.1016/j.childyouth.2020.105218
21. Risi A, Pickard JA, Bird AL. The implications of parent mental health and wellbeing for parent-child attachment: a systematic review. *PLoS ONE.* (2021) 16:e0260891-e. doi: 10.1371/journal.pone.0260891
22. Neil E, Cossar J, Lorgelly P, Young J. *Helping Birth Families: Services, Costs and Outcomes*. London: British Association for Adoption & Fostering (BAAF) (2010).
23. Memarnia N, Nolte L, Norris C, Harborne A. 'It felt like it was night all the time': listening to the experiences of birth mothers whose children have been taken into care or adopted. *Adopt Fost.* (2015) 39:303–17. doi: 10.1177/0308575915611516
24. Broadhurst K, Mason C. Child removal as the gateway to further adversity: birth mother accounts of the immediate and enduring collateral consequences of child removal. *Qualit Soc Work.* (2020) 19:15–37. doi: 10.1177/1473325019893412
25. Aloi JA. Nursing the disenfranchised: women who have relinquished an infant for adoption. *J Psychiatr Ment Health Nurs.* (2009) 16:27–31. doi: 10.1111/j.1365-2850.2008.01324.x
26. Schofield G, Moldestad B, Höjer I. Managing loss and threatened identity: experiences of parents of children growing up in foster care, the perspectives of their social workers and implications for practice. *Br J Soc Work Deutsches Zentralinstitut für soziale Fragen/DZI.* (2011) 41:74–92. doi: 10.1093/bjsw/bcq073
27. Charlton L, Crank M, Kansara K, Oliver C. *Still Screaming: Birth Parents Compulsory Separated from Their Children*. Manchester: After Adoption (1998).
28. Jackson J. Developing a post-adoption groupwork service for non-consenting birth mothers. *Adopti Fostering.* (2000) 24:32–9. doi: 10.1177/030857590002400406
29. Kenny KS, Barrington C, Green SL. "I felt for a long time like everything beautiful in me had been taken out": women's suffering, remembering, and survival following the loss of child custody. *Int J Drug Policy.* (2015) 26:1158–66. doi: 10.1016/j.drugpo.2015.05.024
30. Broadhurst K, Mason C. Birth parents and the collateral consequences of court-ordered child removal: towards a comprehensive framework. *Int J Law Policy Fam.* (2017) 31:41–59. doi: 10.1093/lawfam/ebw013
31. Nixon KL, Radtke HL, Tutty LM. "Every day it takes a piece of you away": experiences of grief and loss among abused mothers involved with child protective services. *J Public Child Welf.* (2013) 7:172–93. doi: 10.1080/15548732.2012.715268
32. Cooper R. *Unrecognised Losses in Child Adoption*. Doka K, editor. Champaign, IL: Research Press. (2002).
33. Doka KJ. *Disenfranchised Grief: New Directions, Challenges, and Strategies for Practice.* Champaign, IL: Research Press (2002).
34. Askren HA, Bloom KC. Postadoptive reactions of the relinquishing mother: a review. *J Obstetr Gynecol Neonatal Nurs.* (1999) 28:395. doi: 10.1111/j.1552-6909.1999.tb02008.x
35. Broadhurst K, Mason C. Maternal outcasts: raising the profile of women who are vulnerable to successive, compulsory removals of their children - a plea for preventative action. *J Soc Welf Fam Law.* (2013) 35:291–304. doi: 10.1080/09649069.2013.805061
36. Eggertson L. Stigma a major barrier to treatment for pregnant women with addictions. *Can Med Assoc J.* (2013) 185:1562. doi: 10.1503/cmaj.109-4653
37. Gunn AJ, Canada KE. Intra-group stigma: examining peer relationships among women in recovery for addictions. *Drugs Educ Preven Policy.* (2015) 22:281–92. doi: 10.3109/09687637.2015.1021241
38. Neo SHF, Norton S, Kavallari D, Canfield M. Integrated Treatment programmes for mothers with substance use problems: a systematic review and meta-analysis of interventions to prevent out-of-home child placements. *J Child Fam Stud.* (2021) 30:2877–89. doi: 10.1007/s10826-021-02099-8
39. Andersson C, Wincup E, Best D, Irving J. Gender and recovery pathways in the UK. *Drugs Educ Prevent Policy.* (2021) 28:454–64. doi: 10.1080/09687637.2020.1852180
40. Tuchman E. Women and addiction: the importance of gender issues in substance abuse research. *J Addict Dis.* (2010) 29:127–38. doi: 10.1080/10550881003684582
41. Scotland PH. *6.Child Poverty in Scotland: Priority Groups - Lone Parent Families*. Scotland2020. Available online at: http://healthscotland.scot/media/3133/child-poverty-in-scotland_priority-groups_lone-parent-families_briefing.pdf
42. Crawford B, Bradley MS. Parent gender and child removal in physical abuse and neglect cases. *Child Youth Serv Rev.* (2016) 65:224–30. doi: 10.1016/j.childyouth.2016.04.013
43. Agterberg S, Schubert N, Overington L, Corace K. Treatment barriers among individuals with co-occurring substance use and mental health problems: examining gender differences. *J Subst Abuse Treat.* (2020) 112:29–35. doi: 10.1016/j.jsat.2020.01.005
44. Tsantefski M, Gruenert S, Campbell L. *Working with Substance-affected Parents and Their Children*. Crows Nest: Allen & Unwin (2015).
45. Isobe J, Healey L, Humphreys C. A critical interpretive synthesis of the intersection of domestic violence with parental issues of mental health and substance misuse. *Health Soc Care Community.* (2020) 28:1394–407. doi: 10.1111/hsc.12978
46. Nelson-Zlupko L, Dore MM, Kauffman E, Kaltenbach K. Women in recovery: their perceptions of treatment effectiveness. *J Subst Abuse Treat.* (1996) 13:51–9. doi: 10.1016/0740-5472(95)02061-6
47. Broadhurst K, Alrouh B, Yeend E, Harwin J, Shaw M, Pilling M, et al. Connecting events in time to identify a hidden population: birth mothers and their children in recurrent care proceedings in England. *Br J Soc Work.* (2015) 45:2241–60. doi: 10.1093/bjsw/bcv130

48. Room R. Stigma, social inequality and alcohol and drug use. *Drug Alcohol Rev.* (2005) 24:143–55. doi: 10.1080/09595230500102434
49. Guille C, Aujla R. Developmental consequences of prenatal substance use in children and adolescents. *J Child Adolesc Psychopharmacol.* (2019) 29:479–86. doi: 10.1089/cap.2018.0177
50. Corrigan PW, Shah BB, Lara JL, Mitchell KT, Simmes D, Jones KL. Addressing the public health concerns of fetal alcohol spectrum disorder: impact of stigma and health literacy. *Drug Alcohol Depend.* (2018) 185:266–70. doi: 10.1016/j.drugalcdep.2017.12.027
51. Schamp J, Simonis S, Roets G, Van Havere T, Gremeaux L, Vanderplasschen W. Women's views on barriers and facilitators for seeking alcohol and drug treatment in Belgium. *Nordisk Alkohol Nark.* (2021) 38:175–89. doi: 10.1177/1455072520964612
52. Turner-Halliday F, Welch V, Bryce G, Forde M, Cotmore R, Wilson P, et al. Partnership approaches to the evaluation of complex policy initiatives: qualitative research as key to building effective relationships: partnership approaches. *Int J Soc Welf.* (2018) 27:381–7. doi: 10.1111/ijsw.12326

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 14 June 2022
doi: 10.3389/fpsyt.2022.879479

Prevalence and Correlates of Active Amphetamine-Type Stimulant Use Among Female Sex Workers in Malaysia

Courtney J. Pedersen[1], *Jeffrey A. Wickersham*[1,2], *Frederick L. Altice*[1,2,3], *Adeeba Kamarulzaman*[1,2], *Kaveh Khoshnood*[3], *Britton A. Gibson*[1], *Antoine Khati*[4], *Francesca Maviglia*[1] *and Roman Shrestha*[1,2,4]*

[1] Section of Infectious Diseases, Department of Internal Medicine, Yale School of Medicine, New Haven, CT, United States,
[2] Centre of Excellence for Research in AIDS (CERiA), Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia,
[3] Department of Epidemiology of Microbial Diseases, Yale School of Public Health, New Haven, CT, United States,
[4] Department of Allied Health Sciences, University of Connecticut, Storrs, CT, United States

OPEN ACCESS

Edited by:
Sarah Fox,
Manchester Metropolitan University,
United Kingdom

Reviewed by:
Samuel R. Friedman,
National Development and Research Institutes, United States
Darshan Singh Darshan Singh,
Universiti Sains Malaysia (USM), Malaysia

***Correspondence:**
Roman Shrestha
roman.shrestha@uconn.edu

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: 19 February 2022
Accepted: 09 May 2022
Published: 14 June 2022

Citation:
Pedersen CJ, Wickersham JA, Altice FL, Kamarulzaman A, Khoshnood K, Gibson BA, Khati A, Maviglia F and Shrestha R (2022) Prevalence and Correlates of Active Amphetamine-Type Stimulant Use Among Female Sex Workers in Malaysia. Front. Psychiatry 13:879479. doi: 10.3389/fpsyt.2022.879479

The use of amphetamine-type stimulants (ATS) has been associated with increased sexual risk behaviors and HIV transmission, among other adverse health outcomes. However, ATS use among female sex workers (FSWs) in Malaysia has not yet been characterized. We examined the prevalence and correlates associated with ATS use among Malaysian FSW. Between February and December 2016, 492 FSWs, including cisgender (n = 299) and transgender (n = 193) women, were recruited using respondent-driven sampling in Greater Kuala Lumpur, Malaysia. A structured questionnaire was used to collect demographic characteristics, sexual behaviors, ATS and other substance use, behavioral health issues, involvement in criminal justice, and experience of physical and sexual trauma. Logistic regression analyses were conducted to determine factors associated with active ATS use, defined as ATS use in the last 30 days. Nearly one-third (32.3%) of participants reported active ATS use. In the multivariable model, ATS use was associated with drug use during sex work (aOR = 17.10; 8.32–35.15), having moderate to severe level of substance use disorder (aOR = 3.38; 1.48–7.70), and engaging in sex work with multiple clients per day (two clients: aOR = 3.39; 1.36–8.46; three clients: aOR = 5.06; 1.81–14.10). A high prevalence of ATS use was documented in our sample. The presence of moderate to severe substance use disorder, the use of drugs during sex work activity, and having multiple sex work clients per day were significantly associated with active ATS use. Given these findings, prevention and harm reduction strategies need to be tailored to address the increasing ATS use and the associated adverse health consequences among FSWs in Malaysia.

Keywords: amphetamine-type stimulant, substance use, sexual risks, HIV, sex worker, Malaysia

INTRODUCTION

Amphetamine-type stimulants (ATS) are synthetic psychostimulants such as methamphetamine, amphetamine, and ecstasy (MDMA), which can be injected, inhaled, smoked, or taken orally. Over the last decade, the global use of ATS has increased significantly (1). ATS are easy to produce, inexpensive to purchase, and hard to control, and are thus consumed in almost every region of the world, including South-East Asia. The growth in supply has led to decreases in prices of ATS throughout the region, increasing their affordability and popularity, with more drug users shifting from opioids to ATS (2). In Malaysia, recent statistics have shown an increase in ATS users, including its markets, seizures, consumption level, and manufacturing (1, 3). The rising consumption of ATS has implications for the prevention and harm reduction strategies targeting FSWs in Malaysia.

Global research on female sex workers (FSWs) indicates a shift to ATS use and away from injection drugs, primarily motivated by sex-work-related or occupation considerations. FSWs report using ATS for various reasons, including increased energy, enhanced libido, and better weight control (4–11). For example, FSWs reported that taking *yaba*, a pill form of methamphetamine and caffeine, allowed them increased stamina for working long hours, seeing more clients, charging higher prices, and being more sociable (4, 12, 13). Moreover, ATS may have a disinhibiting effect on sexual decision-making, so FSWs are more likely to engage in risky sexual behaviors (e.g., group sex, condomless sex, multiple sexual partners) after using ATS, all of which increase the risk of HIV and other STIs (5–7, 14–16).

The prevalence of HIV in FSWs is among the highest in all key populations in Malaysia. Recent data indicates that sex workers, including transgender and cisgender FSWs, are at heightened risk for HIV acquisition and transmission (17). A variety of behavioral, biological, and structural factors mediate this risk and contribute to an increased HIV prevalence in this population (18), with both shared and differing impacts between cisgender and transgender women. More recently, drug use, particularly ATS, has emerged as a potentially significant problem among FSWs in Malaysia (19) and, therefore, requires attention. However, limited exploration of ATS use related to HIV risks has been undertaken among FSWs specifically, where drug use and sex work are harshly criminalized. In Malaysia, both Sharia Law and the Civil Penal Code criminalize "solicitation for the purposes of prostitution" and both statutes are frequently applied to surveil, police, charge, and incarcerate sex workers (20), affecting their ability to safely access HIV prevention services (18). Therefore, the mixture of gender power dynamics, stigma, discrimination, and harsh criminalization of sex work and drug use complicates data collection and harm reduction efforts, which require a nuanced understanding of these populations and the specific risks they face (21–25).

As ATS use becomes more prevalent, it is crucial to characterize the impact of ATS use on marginalized groups, such as FSWs. This study examined the prevalence and factors associated with ATS use among FSWs in Malaysia. This paper is the first step toward developing a better understanding of ATS use among this HIV key population. We hope it will provide critical data required to develop future harm reduction efforts targeting this group.

METHODS

Participants and Recruitment

Data were drawn from a cross-sectional study of 492 FSWs in Greater Kuala Lumpur, Malaysia, conducted between February and December 2016. Participants were recruited using respondent-driven sampling (RDS) from three distinct regions around Greater Kuala Lumpur, including communities of sex workers in urban, suburban, and coastal areas. A total of 28 "seed" participants who were FSWs working in various locations throughout Greater Kuala Lumpur and who had social connections in the sex working community were selected based on recommendations from community-based organizations serving sex workers, with attention given to gender and geographic representation.

After completing HIV and STI testing and questionnaires, each seed participant was given three coupons to recruit potential peers. Subsequent participants were, in turn, given three coupons to recruit additional peers. All participants provided informed consent prior to initiating study activities. Participants were eligible if they met all of the following criteria: a) were 18 years of age or older; b) identified as a cisgender woman (CW) or transgender woman (TW); c) had exchanged sex for money, goods, or services within the past 90 days; d) were willing to undergo HIV and STI testing; e) spoke either Malay, Tamil, or English; and f) were able to provide informed consent. Trained research assistants administered questionnaires that took ∼60 min to complete. Participants received 50 Malaysian Ringgit (MYR) (∼USD 17) for study participation and an additional 20 MYR (∼ USD 7) for each of up to three peers they successfully recruited into the study.

Measures

Dependent Variable

The primary outcome variable, active ATS use, was defined as any use of amphetamine, methamphetamine, or MDMA (3,4-methylenedioxymethamphetamine), commonly known as "ecstasy," in the last 30 days.

Demographic Characteristics

Measures of socio-demographics included age, ethnicity, gender identity, monthly income, and housing status.

Sex Work Characteristics

Total time involved in sex work was measured as the total number of years having worked in sex work. Hours per week engaged in sex work was defined as the weekly number of hours spent soliciting sex work clients and involved in sex work. The number of sex work clients per day (during the last 30 days) was measured as the number of individuals the participant engaged in sex work within a 24-h period. Any condomless receptive vaginal or anal sex with a client in the last 30 days and sex work debut prior to the age of 18 years were also measured. Lastly, we

assessed the co-occurrence of drug use during sex work by asking FSWs about using any illicit drugs immediately prior to or during sexual activity with a client in the last 30 days.

Lifetime and Active Alcohol and Drug Use

Lifetime and active alcohol and drug use were assessed. Lifetime drug use was defined as having ever used a substance one or more times in the entire course of life, and "active" drug use was defined as having used a substance in the 30 days prior to the interview. The most commonly used route of administration for each drug used was also measured, including smoking, oral (eating or swallowing), injecting, or sniffing.

Behavioral Health Measures

The Drug Abuse Screening Test (DAST-10) (26) was used to measure the degree of drug-related problems experienced by participants. Standard cutoff scores to stratify the degree of drug-related problems were used, including: low (1, 2), moderate (3–5), substantial (6–8), and severe (9, 10). The Center for Epidemiologic Studies-Depression (CES-D) was used to screen for depression symptoms, using the standard cutoff score of $\geq$10 to indicate the presence of moderate to severe depression (27, 28). History of suicidality was measured with a single-item question, "*Have you ever thought about killing yourself or tried to kill yourself*," with a binary response ("*yes*" or "*no*").

Physical and Sexual Trauma

Four items from the U.S. Centers for Diseases Control and Prevention's Behavioral Risk Factor Surveillance System questionnaire (29) were used to measure the experience of childhood and adulthood physical and sexual trauma. Childhood physical trauma was measured with a single-item question, "Before the age of 18, were you ever hit, slapped, kicked, or physically hurt by an adult?"). Childhood sexual trauma was measured with two items: "*Before the age of 18, were you ever forced to have sex by an adult or older child?*" and "*Before the age of 18, were you ever touched in a sexual way by an adult or older child when you did not want to be touched that way or were you ever forced to touch an adult or older child in a sexual way?*" A "*yes*" response to either question resulted in a "*yes*" coding for the presence of childhood sexual trauma. Adulthood physical trauma was measured with a single-item question, "*Since the age of 18, have you ever been hit, slapped, kicked, or physically hurt by an adult?*" Adulthood sexual trauma was measured with the single-item question, "*Since the age of 18, have you ever had any unwanted sexual experiences?*" Each variable was coded "*yes*" or "*no*".

Criminal Justice History

Two levels of previous involvement in the criminal justice system were measured. "Previously jailed" was defined as any prior placement in detention, jail, or lock-up by law enforcement. "Previously incarcerated" was defined as any prior imprisonment or incarceration following conviction of a criminal offense.

Analytic Approach

Descriptive statistics were calculated, including frequencies and percentages for categorical variables and means and standard deviations for continuous variables. Bivariate analyses were performed using Chi-square/Fisher's exact and Student's *t*-tests for categorical and continuous covariates, respectively, to identify factors associated with the outcomes (ATS use). A multivariable logistic regression model included variables with bivariate associations of $p < 0.05$. Estimates were evaluated for statistical significance based on 95% confidence intervals and statistical significance of $p < 0.05$. Test for multicollinearity was performed and no issues were detected. All statistical analyses were performed using SPSS version 26.

RESULTS

Participant Characteristics

Participant characteristics are presented in **Table 1**. A total of 492 FSWs–CW (60.8%) and TW (39.2%)–were enrolled from three sites in the Greater Kuala Lumpur area: Metropolitan Kuala Lumpur (54.9%); Klang (31.9%); and Petaling Jaya (13.2%). Over half of the participants were in the age group 26–40 years (50.4%). The majority were stably housed in a house or apartment with roommates (89.0%), about one-third (36.2%) had reached the secondary education level or higher, and 26.0% reported making < RM 1,000 per month (∼USD 244).

Regarding sex work characteristics, participants had engaged in sex work for an average of 12.1 (SD = 10.4) years, with 16.1% reporting first involvement in sex work before the age of 18. During the last 30 days, participants worked for an average of 6 h per day (SD = 3.3), with the majority of them engaging in sex with two or more clients per day (77.2%). Over two-thirds of participants (68.3%) reported condomless receptive sex with clients, and about one-third (33.5%) reported drug use during sex work in the last 30 days.

The history of substance use is shown in **Figure 1**. The majority (72.2%) of the participants reported using any substance ever in their lifetime. The most commonly reported substance used across the lifetime was alcohol (61.4%), followed by ATS (44.9%), heroin (17.7%), and cannabis (15.5%). Nearly half (49.2%) of participants had used a substance in the last 30 days. The most commonly used drug in the last 30 days was ATS (32.3%), followed by alcohol (21.2%), heroin (12.4%), other opioids (5.5%), and cannabis (3.9%). The nearly universal route of administration for ATS was smoking (98.2%), with only 1 participant reporting prior injection of ATS (0.5%). Roughly one-third (27.4%) of participants screened positive for moderate to severe drug abuse disorders. Over half of participants (57.1%) met screening criteria for having moderate to severe depression, and 20.9% had a history of active suicide ideation or suicide attempts.

Most participants (57.5%) reported having been involved with the criminal justice system (CJS) in their lifetime, including prison (32.7%) and detention centers (49.2%). The most common reason for imprisonment was sex work (66.8%) and drug use (40.3%). Regarding physical and sexual trauma, over one-third reported having experienced physical assault (34.8%) and sexual assault (36.8%) in their childhood, whereas 33.7% and 17.3% reported physical and sexual assault in their adulthood, respectively.

TABLE 1 | Bivariate and multivariable logistic regression for active ATS use ($N = 492$).

	%(*n*) or M(SD)	OR (95%CI)	*P*	aOR (95% CI)	*p*
Sociodemographic					
Interview site					
Metropolitan Kuala Lumpur	54.9 (270)	5.01 (3.23, 7.78)	<0.001	1.21 (0.43, 3.42)	0.717
Klang	31.9 (157)	0.65 (0.36, 1.18)	0.156		
Petaling Jaya	65 (13.2)	0.17 (0.10, 0.29)	<0.001	0.54 (0.17, 1.73)	0.297
Ethnicity					
Malay	54.9 (270)	2.33 (1.57, 3.47)	<0.001	1.08 (0.55, 2.17)	0.828
Indian	22.2 (109)	0.79 (0.50, 1.26)			
Gender identity					
Cisgender	60.8 (299)	0.94 (0.64, 1.38)	0.748		
Transgender	39.2 (193)	1.07 (0.72, 1.57)	0.748		
Age (years)					
18–25	13.4 (66)	1.42 (0.77, 2.63)	0.258		
26–40	50.4 (248)	1.47 (0.78, 2.76)	0.237		
41+	36.2 (178)	Reference	–		
Monthly income <1,000 MYR	26.0 (128)	0.81 (0.52, 1.52)	0.338		
Unstable housing	11.0 (54)	3.56 (1.99, 6.37)	<0.001	1.59 (0.64, 3.97)	0.322
Sex work					
Total time in sex work (in years)	12.1 (10.4)	1.02 (1.01, 1.04)	0.037	1.05 (0.95, 1.15)	0.378
Sex work debut pre-18 years of age	16.1 (79)	1.44 (0.87, 2.37)	0.152		
Hours worked per day (last 30 days)	6.0 (3.3)	1.09 (1.03, 1.15)	0.004	1.03 (0.95, 1.12)	0.475
Number of clients per day					
One	22.8 (112)	Reference	–		
Two	36.6 (180)	3.25 (1.81, 5.84)	<0.001	3.39 (1.36, 8.46)	0.009
Three	18.5 (91)	4.28 (2.23, 8.22)	<0.001	5.06 (1.81, 14.10)	0.001
Four or more	22.2 (109)	2.08 (1.08, 3.99)	0.029	2.65 (0.91, 7.78)	0.075
Condomless receptive sex with client	68.3 (336)	1.07 (0.71, 1.60)	0.743		
Drug use during sex work (last 30 days)	33.5 (165)	48.12 (27.59, 83.92)	<0.001	17.10 (8.32, 35.15)	<0.001
Criminal justice history					
Previously jailed (lock-up)	49.2 (242)	8.85 (5.57, 14.04)	<0.001	1.50 (0.66, 3.40)	0.332
Previously incarcerated (prison)	32.7 (161)	8.72 (5.67, 13.43)	<0.001	1.23 (0.54, 2.78)	0.622
Behavioral health					
DAST-10					
None	44.3 (218)	Reference	–	Reference	–
Low level	20.5 (101)	1.98 (1.07,3.65)	0.029	1.04 (0.43, 2.54)	0.935
Moderate to severe level	27.4 (135)	30.13 (17.07,53.19)	<0.001	3.38 (1.48, 7.70)	0.004
Depression symptomatic	57.1 (281)	1.48 (1.00,2.18)	0.048	0.76 (0.37, 1.54)	0.439
History of suicidality	20.9 (388)	1.68 (1.07, 2.63)	0.023	0.92 (0.43, 1.94)	0.822
Physical and sexual trauma					
Childhood physical trauma	34.8 (171)	2.15 (1.46, 3.17)	<0.001	1.46 (0.38, 1.58)	0.283
Childhood sexual trauma	36.8 (181)	1.67 (1.13, 2.47)	0.010	0.78 (0.73, 2.93)	0.484
Adulthood physical trauma	33.7 (166)	2.05 (1.38, 3.03)	<0.001	1.07 (0.53, 2.19)	0.847
Adulthood sexual trauma	17.3 (85)	1.70 (1.06, 2.75)	0.029	0.97 (0.43,2.22)	0.944

Correlates of Active ATS Use

Table 1 shows the independent correlates associated with active ATS use in the multivariate logistic regression. Use of drugs during sex work in the last 30 days (aOR = 17.10; 95% CI, 8.32–35.15), having moderate to severe level of substance use disorder (aOR = 3.38; 95% CI, 1.48–7.70), and engaging in sex work with multiple clients per day (two clients: aOR = 3.39; 95% CI, 1.36–8.46; three clients: aOR = 5.06; 95% CI, 1.81–14.10) were all significantly associated with active ATS use in the multivariable model.

DISCUSSION

The use of ATS among FSWs in Malaysia, and associated factors, have been scantly documented in Malaysia. To the best of our knowledge, this is the first study to assess ATS use

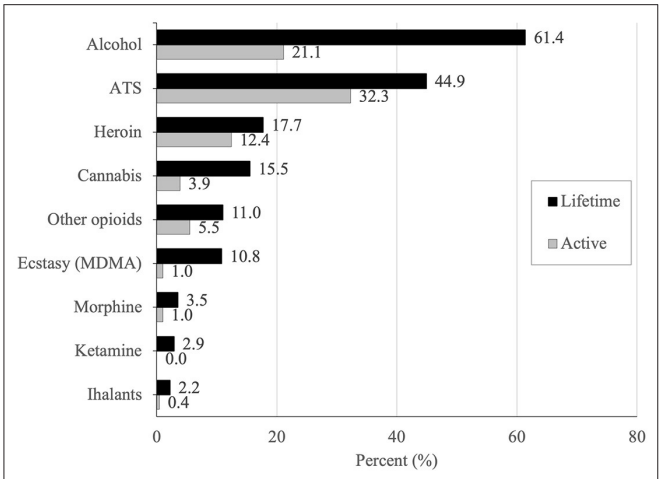


FIGURE 1 | Lifetime and active history of substance use among sex workers who are cisgender or transgender women, in Greater Kuala Lumpur, Malaysia.

and the associated factors among Malaysian FSW, a setting where FSWs are highly stigmatized and discriminated against (20), and consequently face challenges accessing healthcare and HIV prevention (30). This study provides important insights into the patterns of drug use, particularly ATS, among this highly marginalized group. Specifically, our findings indicate a high prevalence of active ATS use in this sample. Although the disaggregated ATS use data is not available, estimates have shown an increase in ATS users based on seizures, consumption level, and manufacturing in the recent years (1, 31), which has important implications for the prevention and harm reduction strategies targeting FSWs in the region. These results are similar to those observed among FSWs elsewhere in Asia and globally (8, 19, 32, 33). This finding is particularly concerning in the Malaysian context because Malaysia serves as a transit country for drug trafficking, and increased ATS pill seizures by law enforcement in recent years suggest the increasing availability of ATS in the region (1). With a large proportion of Malaysian FSWs using ATS, prevention strategies and health policies need to be tailored to these contexts to address the increasing use of ATS and the associated adverse health consequences.

Participants in our sample also faced several vulnerabilities to HIV, including condomless sex, entering sex work before 18 years of age, and having multiple sex work clients, contributing to the ongoing HIV epidemic among sex workers. Worsening the concern of sexual risk is the issue of drug use, particularly during sex work. Our findings revealed that a high proportion (72.2%) of FSWs in the study reported ongoing substance use. Over one-third of participants reported substance use during sex work, demonstrating that drug use was largely part of the occupational culture of sex work. Additionally, the use of ATS was significantly associated with having multiple sex clients per day, a finding that is consistent with that from prior studies (5–7, 14, 15). Although not explored here, prior literature has shown that ATS is not only used for recreational and social purposes to increase libido, reduce sexual inhibitions, enhance sexual pleasure, enhance sociability, but also for occupational purposes in order to increase energy and productivity (4–9, 11–13, 18, 34), thus facilitating longer work hours, and enabling women to see more clients and potentially increase their income.

Furthermore, the literature has shown that ATS use is associated with impaired decision making, prolonged sexual activities, lack of negotiation for safer sex, and inconsistent condom use among many groups, including FSWs (4–6, 16, 35–37). As drug use can increase risk-taking behaviors, occupationally driven drug use should be addressed as part of HIV prevention efforts. The high levels of ATS use and its influence on HIV transmission indicate the need to address it as an important risk factor in this group. Prevention efforts, therefore, need to be focused on sexual behaviors and increasing understanding of the risk associated with drug use, especially ATS.

Interestingly, however, while receptive condomless sex with a client was frequent and concerned two-thirds of our sample, it was not associated with ATS use, suggesting that condomless sex in this community is driven by other factors. In contexts where sex work is criminalized, condom use is impeded by a variety of barriers including dangers of disclosure of sex worker status to a health professional; lack of negotiating power with clients; and legal liabilities connected to possession of condoms (18). In a qualitative case study assessing the impact of sex work criminalization laws, for instance, Malaysian sex workers reported that carrying condoms is used by police as evidence of engagement in sex work to arrest presumed sex workers (20). Modeling studies estimate that the decriminalization of sex work could lead to a global 33–46% reduction in new HIV infections in sex workers over 10 years (18). Absent a change in legal status, however, community-driven interventions such as peer outreach and education have been shown to be successful in increasing access to safe sex supplies and self-efficacy in negotiating condom use (34, 38, 39).

There are several potential limitations to this study. While the RDS sampling was beneficial in obtaining a large sample size from this hard-to-reach population, it is possible that bias was introduced due to social networks. We attempted to prevent this as much as possible by sampling from three sites with unique geographic characteristics within the Greater Kuala Lumpur area and including multiple seed participants at the beginning of the study. Additionally, the topics of our study focused on both culturally sensitive and criminalized behaviors; as such, our results may have been influenced by social desirability reporting bias. Due to the scope of this study, we focused on correlates of ATS use in this study. Future research should explore whether the engagement in HIV risk behavior among ATS users differs by gender identity or other demographic characteristics. Lastly, given the cross-sectional design of our study, we could not determine the temporality or causality of any of the variables that were independently associated with active ATS use.

Despite these limitations, recognition, and understanding of ATS use and HIV-related risks surrounding this group could lead to prevention efforts that will ultimately help slow down the transmission of HIV within this vulnerable population. Policing, supply reduction, and zero tolerance policies currently

drive the response to ATS use in the Southeast Asia region. These approaches, however, have been shown to be at best ineffective and at worst harmful by driving incarceration and increasing social vulnerability (40). There is an urgent need for harm reduction services, which have typically been focused on opioid users, to be tailored to the needs of ATS users. For example, education to increase awareness on some of the risks associated with ATS use and measures to alleviate them, strengthened psychosocial support, distribution of safe smoking and safe sex kits, and substitution treatment for amphetamine dependence using dexamphetamine, modafinil or milder plant-bases stimulants are examples of harm reduction-informed strategies to engage sex workers who use ATS (40–42).

CONCLUSION

The current study constitutes one of the first efforts toward determining the prevalence and factors associated with ATS use among Malaysian FSWs, a group that already faces substantial occupational risk and societal marginalization. The results highlight a high prevalence of substance use, particularly ATS, among Malaysian FSWs. The findings further offer important insights into the intersection of ATS use, substance use-related problems, and HIV risk for prevention efforts tailored for FSWs, and sex workers in general, in Malaysia and elsewhere. There is an urgent need for tailored multilevel interventions to mitigate the impact of the dual epidemic of substance use and HIV on this highly marginalized community.

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The Institutional Review Board (IRB) at Yale University and the Ethics Committee at the University of Malaya approved the study. The participants provided their written informed consent to participate in the study.

AUTHOR CONTRIBUTIONS

CP, JW, and RS: study conception and design, analysis, and interpretation of results. JW: data collection. CP, JW, RS, FM, and AKh: draft manuscript preparation. All authors reviewed the results and approved the final version of the manuscript.

FUNDING

This work was supported by the National Institute on Drug Abuse for career development under Grant [K24 DA017072], [K01 DA051346], and [K01 DA038529].

REFERENCES

1. United Nations Office on Drugs Crime. World Drug Report 2020 (2020). Contract No.: Sales No. E.20.XI.6.
2. Kulsudjarit K. Drug problem in southeast and southwest Asia. *Ann N Y Acad. Sci*. (2004) 1025. doi: 10.1196/annals.1316.055
3. Singh D, Chawarski MC, Schottenfeld R, Vicknasingam B. Substance abuse and the HIV situation in Malaysia. *J Food Drug Anal*. (2013) 21:S46–51. doi: 10.1016/j.jfda.2013.09.033
4. Couture MC, Sansothy N, Sapphon V, Phal S, Sichan K, Stein E, et al. Young women engaged in sex work in Phnom Penh, Cambodia, have high incidence of HIV and sexually transmitted infections, and amphetamine-type stimulant use: new challenges to HIV prevention and risk. *Sex Transm Dis*. (2011) 38:33. doi: 10.1097/OLQ.0b013e3182000e47
5. Couture MC, Evans JL, Sothy NS, Stein ES, Sichan K, Maher L, et al. Correlates of amphetamine-type stimulant use and associations with HIV-related risks among young women engaged in sex work in Phnom Penh, Cambodia. *Drug Alcohol Depend*. (2012) 120:119–26. doi: 10.1016/j.drugalcdep.2011.07.005
6. Ho HT, Le GM, Dinh TT. Female sex workers who use amphetamine-type stimulants (ATS) in three cities of Vietnam: use and sexual risks related to HIV/AIDS. *Glob Public Health*. (2013) 8:552–69. doi: 10.1080/17441692.2013.790459
7. Hail-Jares K, Choi S, Duo L, Luo Z, Huang ZJ. Occupational and demographic factors associated with drug use among female sex workers at the China–Myanmar border. *Drug Alcohol Depend*. (2016) 161:42–9. doi: 10.1016/j.drugalcdep.2016.01.026
8. Kang D, Liao M, Jiang Z, Zhang X, Mao W, Zhang N, et al. Commercial sex venues, syphilis and methamphetamine use among female sex workers. *AIDS Care*. (2011) 23:26–36. doi: 10.1080/09540121.2011.560930
9. Lorvick J, Bourgois P, Wenger LD, Arreola SG, Lutnick A, Wechsberg WM, et al. Sexual pleasure and sexual risk among women who use methamphetamine: A mixed methods study. *Int J Drug Policy*. (2012) 23:385–92. doi: 10.1016/j.drugpo.2012.07.005
10. Urada LA, Strathdee SA, Morisky DE, Schilling RF, Simbulan NP, Estacio LR Jr, et al. Sex work and its associations with alcohol and methamphetamine use among female bar and spa workers in the Philippines. *Asia Pac J Public Health*. (2014) 26:138–46. doi: 10.1177/1010539512471969
11. Dixon TC, Ngak S, Stein E, Carrico A, Page K, Maher L. Pharmacology, physiology and performance: occupational drug use and HIV risk among female entertainment and sex workers in Cambodia. *Harm Reduct J*. (2015) 12:33. doi: 10.1186/s12954-015-0068-8
12. Barr AM, Panenka WJ, MacEwan GW, Thornton AE, Lang DJ, Honer WG, et al. The need for speed: an update on methamphetamine addiction. *J Psychiatry Neurosci*. (2006) 31:301–13.
13. McKetin R, Kozel N, Douglas J, Ali R, Vicknasingam B, Lund J, et al. The rise of methamphetamine in Southeast and East Asia. *Drug Alcohol Rev*. (2008) 27:220–8. doi: 10.1080/09595230801923710
14. Cheng WS, Garfein RS, Semple SJ, Strathdee SA, Zians JK, Patterson TL. Differences in sexual risk behaviors among male and female HIV-seronegative heterosexual methamphetamine users. *Am J Drug Alcohol Abuse*. (2009) 35:295–300. doi: 10.1080/00952990902968585
15. Colfax G, Santos GM, Chu P, Vittinghoff E, Pluddemann A, Kumar S, et al. Amphetamine-group substances and HIV. *Lancet*. (2010) 376:458–74. doi: 10.1016/S0140-6736(10)60753-2
16. Hoffman BR. The Interaction of Drug Use, Sex Work, and HIV Among Transgender Women. *Subst Use Misuse*. (2014) 49:1049–53. doi: 10.3109/10826084.2013.855787
17. Wickersham JA, Gibson BA, Bazazi AR, Pillai V, Pedersen CJ, Meyer JP, et al. Prevalence of human immunodeficiency virus and sexually transmitted

infections among cisgender and transgender women sex workers in greater kuala lumpur, malaysia: results from a respondent-driven sampling study. *Sex Transm Dis.* (2017) 44:663–70. doi: 10.1097/OLQ.0000000000000662
18. Shannon K, Strathdee SA, Goldenberg SM, Duff P, Mwangi P, Rusakova M, et al. Global epidemiology of HIV among female sex workers: influence of structural determinants. *Lancet.* (2015) 385:55–71. doi: 10.1016/S0140-6736(14)60931-4
19. Wickersham JA, Loeliger KB, Marcus R, Pillai V, Kamarulzaman A, Altice FL. Patterns of substance use and correlates of lifetime and active injection drug use among women in Malaysia. *Am J Drug Alcohol Abuse*. (2015) 42:1–13. doi: 10.3109/00952990.2015.1101467
20. *How Sex Work Laws are Implemented on the Ground and their Impact on Sex Workers-Malaysia case study*. Global Network of Sex Work Projects.
21. Ferro EG, Culbert GJ, Wickersham JA, Marcus R, Steffen AD, Pauls HA, et al. Physician decisions to defer antiretroviral therapy in key populations: implications for reducing human immunodeficiency virus incidence and mortality in Malaysia. *Open Forum Infect Dis*. (2017) 4:ofw219. doi: 10.1093/ofid/ofw219
22. Earnshaw VA, Jin H, Wickersham J, Kamarulzaman A, John J, Altice FL. Exploring intentions to discriminate against patients living with HIV/AIDS among future healthcare providers in Malaysia. *Trop Med Int Health.* (2014) 19:672–9. doi: 10.1111/tmi.12306
23. Vijay A, Earnshaw VA, Tee YC, Pillai V, White Hughto JM, Clark K, et al. Factors associated with medical doctors' intentions to discriminate against transgender patients in Kuala Lumpur, Malaysia. *LGBT Health.* (2018) 5:61–8. doi: 10.1089/lgbt.2017.0092
24. Fulu E, Jewkes R, Roselli T, Garcia-Moreno C, on behalf of the UN Multi-country Cross-sectional Study on Men and Violence research team. Prevalence of and factors associated with male perpetration of intimate partner violence: findings from the UN Multi-country Cross-sectional Study on Men and Violence in Asia and the Pacific. *Lancet Glob Health.* (2013) 1:e187–207. doi: 10.1016/S2214-109X(13)70074-3
25. Springer SA, Larney S, Alam-Mehrjerdi Z, Altice FL, Metzger D, Shoptaw S. Drug treatment as HIV prevention among women and girls who inject drugs from a global perspective: progress, gaps, and future directions. *J Acquir Immune Defic Syndr.* (2015) 69 Suppl 2:S155–61. doi: 10.1097/QAI.0000000000000637
26. Skinner HA. The drug abuse screening test. *Addict Behav.* (1982) 7:363–71. doi: 10.1016/0306-4603(82)90005-3
27. Radloff L. The CES-D scale: A self-report depression scale for research in the general population. *Appl. Psychol. Meas*. (1977) 1:385–401. doi: 10.1177/014662167700100306
28. Chwastiak L, Ehde DM, Gibbons LE, Sullivan M, Bowen JD, Kraft GH. Depressive symptoms and severity of illness in multiple sclerosis: epidemiologic study of a large community sample. *Am J Psychiatry.* (2002) 159:1862–8. doi: 10.1176/appi.ajp.159.11.1862
29. Centers for Disesae Control and Prevention. *Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire*. Atlanta, GA: CDC (2006).
30. Ranjit YS, Gibson BA, Altice FL, Kamarulzaman A, Azwa I, Wickersham JA. HIV care continuum among cisgender and transgender women sex workers in Greater Kuala Lumpur, Malaysia (2021). Available online at: https://doiorg/101080/0954012120211995839
31. Haitham Abdalrazak PMR, Halim S, Poh LT, Alliya-Syakirah MR, Thineswary V, Maizatul-Afiqah BN, et al. *Review on Substances Abuse in Malaysia-Way Forward and Challenging*. Available online at: https://wwwannalsofrscbro/indexphp/journal.2021.
32. Strathdee SA, Philbin MM, Semple SJ, Pu M, Orozovich P, Martinez G, et al. Correlates of injection drug use among female sex workers in two Mexico-U. S border cities. *Drug Alcohol Depend.* (2008) 92:132–40. doi: 10.1016/j.drugalcdep.2007.07.001
33. Shokoohi M, Karamouzian M, Sharifi H, Rahimi-Movaghar A, Carrico AW, Hosseini Hooshyar S, et al. Crystal methamphetamine use and its correlates in women engaged in sex work in a developing country setting. *Drug Alcohol Depend.* (2018) 185:260–5. doi: 10.1016/j.drugalcdep.2017.12.025
34. Urada LA, Strathdee SA, Morisky DE, Schilling RF, Simbulan NP, Estacio LR, et al. Sex work and its associations with alcohol and methamphetamine use among female bar and spa workers in the Philippines. *Asia Pac J Public Health.* (2013) 26:138–46. doi: 10.1177%2F1010539512471969
35. Halkitis PN, Jerome RC, A. comparative analysis of methamphetamine use: black gay and bisexual men in relation to men of other races. *Addict Behav.* (2008) 33:83–93. doi: 10.1016/j.addbeh.2007.07.015
36. Muñoz FA, Pollini RA, Zúñiga ML, Strathdee SA, Lozada R, Martinez GA, et al. Condom access: associations with consistent condom use among female sex workers in two northern border cities of Mexico. *AIDS Education and Prevention.* (2010) 22:455–65. doi: 10.1521/aeap.2010.22.5.455
37. Prestage G, Degenhardt L, Jin F, Grulich A, Imrie J, Kaldor J, et al. Predictors of frequent use of amphetamine type stimulants among HIV-negative gay men in Sydney, Australia. *Drug Alcohol Depend.* (2007) 91:260–8. doi: 10.1016/j.drugalcdep.2007.06.009
38. Kang D, Tao X, Liao M, Li J, Zhang N, Zhu X, et al. An integrated individual, community, and structural intervention to reduce HIV/STI risks among female sex workers in China. *BMC Public Health.* (2013) 13:717. doi: 10.1186/1471-2458-13-717
39. Ye X, Shang M, Shen T, Pei B, Jiang X, Cai Y. Social, psychological, and environmental-structural factors determine consistent condom use among rural-to-urban migrant female sex workers in Shanghai China. *BMC Public Health.* (2012) 12:599. doi: 10.1186/1471-2458-12-599
40. Blickman T. *Amphetamine Type Stimulants and Harm Reduction*. Myanmar, Thailand and Southern China: Transnational institute (2011).
41. Shearer J, Sherman J, Wodak A, Van Beek I. Substitution therapy for amphetamine users. *Drug Alcohol Rev.* (2002) 21:179–85. doi: 10.1080/09595230220139082
42. *Harm Reduction For Stimulant Use*. Harm Reduction International (2022).

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

frontiers | Frontiers in Psychiatry

ORIGINAL RESEARCH
published: 12 July 2022
doi: 10.3389/fpsyt.2022.892849

Adverse Childhood Experiences, Domestic Violence and Substance Misuse: An Action Research Study on Routine Enquiry and Practice Responses

Sarah Morton[1]*, *Megan Curran*[2] and *Mary Barry O'Gorman*[3]

[1] School of Social Policy, Social Work and Social Justice, University College Dublin, Dublin, Ireland, [2] Center on Poverty and Social Policy, School of Social Work, Columbia University, New York, NY, United States, [3] Cuan Saor Women's Refuge, Clonmel, Ireland

The long-term impacts of Adverse Childhood Experiences (ACEs) are of increasing interest to researchers and practitioners, including the effectiveness of screening for ACEs to improve health and social outcomes. Despite a focus on implementing such practices, there has been little focus on ACEs experiences for women experiencing domestic violence and substance use, or consideration of practice responses around ACEs routine enquiry for domestic violence and related services. The Irish study discussed in this paper used an action research approach to implement ACEs routine enquiry within a domestic violence service for women accessing the service ($n = 60$), while also utilizing co-operative inquiry groups for practitioners both within the organization ($n = 10$) and with those working in associated fields of infant mental health, child protection, substance misuse and welfare and community support ($n = 7$). Of the 60 women who completed the ACEs routine enquiry in the study, over one-half (58 per cent) reported experiencing at least two ACEs in their childhood, including one-third of all respondents reporting experiencing four or more; service users reported significant levels of overlap between direct child maltreatment and adverse home environments. Reported parental substance misuse with the home environment was substantially higher than in general population studies. These findings offered early indications of both ACEs prevalence as well the types of ACEs that most define the experiences of the women presenting to a domestic violence service that supports women with substance misuse and other related issues. This paper discusses the ways in which the co-operative inquiry groups used this information and other processes to enhance practitioner, organizational, and inter-agency understanding and service responses. The practitioners felt that this form of ACEs routine enquiry, while not an end in itself, was a useful tool to engage women in conversations about trauma and intergenerational patterns and a basis for developing trauma-informed interventions. We conclude with discussion about: considerations of the risks of "individualizing" women's traumatic experiences; skills and supports for practitioners; and resource implications.

Keywords: substance use, domestic violence, adverse childhood experience (ACE), trauma informed responses, organizational change, practitioner change

OPEN ACCESS

Edited by:
Anette Skårner,
University of Gothenburg, Sweden

Reviewed by:
Karin Berg,
University of Gothenburg, Sweden
Johan Hagborg,
University of Gothenburg, Sweden

***Correspondence:**
Sarah Morton
sarahmorton@ucd.ie

Specialty section:
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

Received: *09 March 2022*
Accepted: *20 June 2022*
Published: *12 July 2022*

Citation:
Morton S, Curran M and Barry O'Gorman M (2022) Adverse Childhood Experiences, Domestic Violence and Substance Misuse: An Action Research Study on Routine Enquiry and Practice Responses. Front. Psychiatry 13:892849. doi: 10.3389/fpsyt.2022.892849

INTRODUCTION

The long-term impacts of Adverse Childhood Experiences (ACEs) are of increasing interest to researchers and practitioners, and consideration is also being given to the effectiveness of routine enquiry for ACEs to improve health and social outcomes. Some attention is also being paid to the links between ACEs and domestic violence, poverty, and substance use in order to inform appropriate health and social care responses (1). As yet we have little data on the ACEs experiences for women experiencing domestic violence and substance use, or consideration of practice responses around ACEs routine enquiry for domestic violence and related services (2). This article presents the findings of an Irish study that used an action research approach to implement ACEs routine enquiry within a domestic violence service that already provides supports to women with active substance misuse issues.

The study of ACEs examines the impact of childhood experiences–particularly stressful ones–on an individual's subsequent life course. The term originated in a US study of the same name conducted by the American health care provider, Kaiser Permanente, and the Division of Violence Prevention in the US Centers for Disease Control and Prevention (CDC) in the mid-1990s. Results, published by Felitti et al. (3), found a strong interrelationship between adverse childhood experiences and severe chronic disease and premature death in adulthood, effectively launching what is now a growing body of research and evidence-based practice. The wide range of ACEs literature now interrogates the effects of physical and emotional treatment, familial relationships, and home environments experienced as a child on individuals' future emotional, health, education, financial outcomes, as well as the potential for intergenerational transmission or replication of similar trauma on their own children. It is important to note that ACEs theory and practice sit alongside or within the context of other approaches and concepts of trauma and intergenerational transmission of trauma, including sociocultural, psychodynamic, biological and family system models (4). For instance, consideration of ACEs has been combined with the concepts of "ghosts" (adversity) and "angels" (benevolence) in the nursery to predict risk and resilience factors across generations (5). It has been argued that uncovering and exploring angels in the childhood experiences of parents may be as vital as identifying adversity (6). Ultimately though, how we intervene and provide adults with greater understanding of their trauma experiences is key (4).

Although ideas about ACEs are at times contested–with some calls for more conceptual clarity and improved measurement (7) and cautions against potential misuse of results (8)–ACEs routine enquiry has produced important results. The current ACEs categories of focus include:

- Child Maltreatment: sexual abuse, physical abuse, verbal abuse.
- Children's Environment: domestic violence, parental separation, mental illness, alcohol abuse, drug abuse, incarceration (9).

Experiencing four or more of these issues is seen to significantly increase the likelihood of a person engaging in future risky behavior, which may lead to a range of poor health outcomes in adulthood (3, 9). ACEs also impact on wider society; for example there may be intergenerational effects and pressures on health and social care agencies, particularly in terms of complex social problems such as substance use and domestic violence (9–11). To date, policy responses tend to focus on prevention and early intervention (12, 13).

The organization in this study, like many domestic violence services, has seen an increase in complex cases, including more overt presentations of substance use issues among women accessing refuge and other support services. ACEs have strong links to both. Research has long identified domestic violence as an issue with the potential for intergenerational patterns (14, 15) violence witnessed or experienced as a child can significantly increase the risk of exposure or perpetration of violence in the home later on (16). Leza et al. (17) review the existing literature on ACEs and substance misuse; they acknowledge that not enough is yet known about protective factors that could mediate this relationship, but that the weight of the available evidence reveals positive associations between ACEs and later substance use disorder (SUD) diagnoses or higher prevalence of ACEs among individuals in substance misuse treatment compared to general populations. Fuller-Thomson et al. (18), for example, find that three particular types of violence-related ACEs–sexual abuse, physical abuse, and exposure to parental domestic violence–have independent relationships to lifetime drug and alcohol dependency.

Brown et al. (19) explore the co-occurrence of substance use and domestic violence, finding that substance use can often be a mediating factor between the violence and earlier ACEs trauma. Experiencing childhood abuse can increase the likelihood of experiencing intimate partner violence as an adult (11) and substance use can often be used to cope with the repeated trauma (20). This can work in the opposite direction as well; childhood abuse can lead to substance use, which can, in turn, increase the risk for domestic violence (for both potential victims and potential aggressors). Violence and substance use become intertwined, but it can be ACEs that drive them both.

There is a gender difference in how this confluence of childhood trauma and adult domestic violence and substance use plays out, with a resulting impact on the services operating at the intersection of these areas. Women are significantly more likely to experience domestic violence as both children and as adults than are men (9). It is important to note, of course, that though research reveals links between ACEs and experiences of being subjected to domestic violence later in life, this does not suggest that the violence is a consequence of women's choices (whether they have experiences of ACEs or not). Women are also more likely to use substances as a means of coping with this violence. Gutierres and Van Puyumbroeck [(10), p. 502] report that 90 per cent in substance misuse treatment have a history of traumatic violence; there is also evidence of a 'lifespan victimization among women who misuse substances', as the combination of ACEs and substance use puts these women at further risk for future domestic violence and sexual abuse. This has been reiterated

by Boppre and Boyer (21) who found that women involved in the criminal justice system often linked their substance use trajectories to experiences of adversity in childhood.

This "lifespan" aspect is key. An important element of ACEs research emphasizes the fact that different types of adverse experiences often co-occur for children (e.g., physical abuse and mental illness in the household and parental separation or child maltreatment alongside intimate partner violence) and the cumulative effect of these interrelationships is critical to understanding ACEs' long-term effects (16, 22). Infant mental health (IMH) is a concept used to describe the social and emotional development of a child from age zero to three (23). It is argued that a poor or stressful relationship with their caregivers will induce stress in the child, potentially affecting their cognitive, physical, emotional and social development over the longer-term (24). Children may be exposed to ACEs in the home, either through maltreatment or through factors in their home environment. Research indicates that parents who misuse substances, for example, may be less able to provide high-quality parenting–a particular risk for forming insecure attachment when children are very young (25).

Infants can also be affected, perinatally, by maternal ACEs (e.g., the adverse childhood experiences of their mother). This has particular salience in Ireland, as Cheong et al. (26) found that ACEs are common among older Irish adults, potentially due to multiple forms of child abuse endemic in state and church run organizations and educational settings (27). McDonnell and Valentino (28) found an intergenerational effect of maternal childhood trauma on infants, in the form of lower birth weight and reducing infant functioning, and a link between higher ACEs scores and maternal depression (pre- and post-partum), with implications for infant attachment. They also found an association between ACEs and pregnancy at an early age, as well as other risky behaviors and links to other forms of social disadvantage. Given these connections, ACEs may offer a useful framework for interventions and services, especially those that deal with complex cases (such as women with children who present with domestic violence experiences and substance use in tandem), because the cases may contain "a complex set of highly interrelated experiences" [(22), p. 773].

A common practice response is to apply a trauma-informed approach to care (29) which has been described "the simple and direct approach of listening and validating [an individual's] experience that shifts from asking," "What is wrong with you?" to "What has happened to you?" [(30), p. 49, (31), p. 2]. Trust-based relationships and community-based supports can be key components of trauma-informed responses where there are childhood experiences of trauma (32). Leza et al. (17) conclude their scoping review of the connections between ACEs and substance use disorder with specific support for the application of trauma-informed care. Such approaches seek to explore the most appropriate interventions for the individuals and to mitigate any intergenerational effects (33). Najavits (34) work on intervention approaches focuses on building coping skills, acknowledging the inter-relationship between trauma and substance use in women's lives. This concurs with Bath's (32) three components of trauma-informed intervention; safety; trust; and development of coping skills. To identify childhood trauma experiences, some organizations target only those individuals who present to a specific part of the service (for example: in cases of domestic violence cases, those seeking refuge), while others adopt a universal approach, regardless of specialist or intensive need. The timing of routine enquiry can vary–sometimes it is at the point of first contact, others only after establishing a relationship with the service user (33). Within domestic violence organizations, McGee et al. (33) found that crisis mitigation often takes precedence, with the result that ACEs screenings are contingent on the skills of the practitioner at that moment.

Despite the volume of the literature on this topic, ACEs routine enquiry remains challenging and contested. A review of pilot ACEs routine enquiry programmes across a range of sectors in the UK found limitations in delivery caused by lack of organizational expertise, capacity, and commitment (35). This is important in the context of ACEs research where there is criticism of initiatives to introduce ACEs routine enquiry into trauma-informed care in ways that fail to distinguish between potential individual-level impacts (which create potential stigma) instead of group- or population-level application where changes at the level of structure are targeted (8). Training and skill development for staff in responding to historical and ongoing trauma experiences has also been found to be key (36), as well as greater insight in women's recovery pathways where multiple issues exist (37). Given this context, this study sought to (a) identify the level of ACEs for women accessing a domestic violence service; (b) consider and explore trauma-informed responses to women's childhood experiences and the inter-generational transmission of trauma; and (c) consider the role of ACEs routine enquiry and intervention in relation to a range of agencies the domestic violence service work with including those focused on infant mental health (IMH), a key area of work for childcare workers within domestic violence settings.

MATERIALS AND METHODS

The study upon which this article is based took place in an organization delivering services to women and children who experience domestic violence and related issues, including substance misuse. Established 25 years ago in a large town in Ireland, the organization provides emergency accommodation, keyworker support, counseling, helpline support, children's interventions and court accompaniment. Over the past decade, the organization has developed specific supports and responses to women who are experiencing problematic substance use, and currently; accommodate women within refuge with substance misuse issues; routinely enquire about substance use issues; support women to access substance use stabilization, treatment, and recovery services; provide harm reduction interventions; and provide substance misuse in-reach for residents (38). In addition, substance misuse responses and interventions are integrated into other services such as the Pattern Change groupwork programme, art therapy and advocacy supports (2).

TABLE 1 | Study design.

Phase 1	Phase 2	Phase 3
(Service user implementation)	(Practitioner groupwork support, assessment, and reflection)	
ACEs routine enquiry with women accessing domestic violence organization using ten point questionnaire (39) $n = 60$	Co-operative inquiry group for domestic violence service practitioners. $n = 10$	Co-operative inquiry group for external community partners involved in IMH. $n = 7$

Study Design

To meet these aims, an action research approach, involving three phases as seen in **Table 1**, was taken in a study completed over a nine-month period. The first phase involved the implementation of ACEs routine enquiry for women accessing all aspects of the organization's services ($n = 60$ service user participants) using the ten-question ACEs questionnaire from the US Centers for Disease Control and Prevention short ACEs tool (39). The second phase, undertaken concurrently, was a series of co-operative inquiry groups facilitated with domestic violence service staff and designed to support their implementation of the ACEs routine enquiry with service users and their development of responses to women who completed the routine enquiry. The third phase involved the facilitation of an inter-agency co-operative inquiry group with external community service partners on the potential to integrate ACEs into wider inter-agency work, especially where there is a focus on IMH. The study was granted ethical approval by the first author's university.

The quantitative element of the study involved the implementation of a ten-question ACEs questionnaire for women accessing the organization over a 4-month period. The questions mirror established ACEs questions from the US Centers for Disease Control and Prevention short ACEs tool and have been used in similar ACEs routine enquiry implementation to measure childhood exposure to forms of abuse and household dysfunction (39). All questions were yes/no; four questions focused on direct maltreatment experienced as a child (e.g., abuse experienced themselves) and six focused on their home environment as a child (e.g., abuse experienced by other members of the household or substance misuse by household members, among other things). For example, direct maltreatment questions ranged from emotional (did a parent or other adult…act in a way that made you feel worthless or scared) to physical (did a parent or other adult push, grab, slap…or ever hit you so hard you…were injured?/touch you or make you touch their body in a sexual way…?) to neglect [did your parent(s) make you go without enough food or drink, clean clothes, or a clean and warm place to live for long periods of time?]. Home environment questions asked whether the individual's home as a child saw adults with mental health issues, substance misuse, incarceration, physical or emotional abuse, or relationship breakdown. Inclusion criteria were set in regard to women accessing any of the organization's support and refuge services. To be invited to complete the ACEs routine enquiry, women had to: be fully aware of the range of supports offered by service; not be in crisis, which is understood in this practice setting to mean the woman is not dealing with an immediate risk to her safety and wellbeing or that of her children; have attended the service on at least three occasions; and not be significantly affected by current drug or alcohol use. Posters outlining the study and what ACEs routine enquiry consisted of were placed in all public spaces in the organization's building. All women who met the above criteria were invited to participate over a 4-month period. Women also self-selected, asking to participate when they saw the poster. The ACEs routine enquiry was explained by the practitioner. All participants signed forms of consent and were informed that they could change their mind at any time. Participants were informed their ACEs routine enquiry form would be anonymised. Over the 4-month period, sixty completed the ACEs routine enquiry ($n = 60$ women). All of the women invited to complete the ACEs routine enquiry agreed, though one requested to complete it on a different occasion.

Inquiry Group Procedure

Co-operative inquiry groups are a core action research method that can assist in identifying the needs of those served by the organization and offer the opportunity to explore and respond to presenting problems within practice and organizational contexts (40). Where the subject matter is sensitive, it is important to be attentive to practitioner stressors; for group members to stay emotionally present (41); deal with transference and countertransference (42); and potentially engage in various emotional labor strategies (43) to ensure positive outcomes. The complexity of these processes adds an additional layer to the facilitator's role and group dynamics as a whole (44). For both sets of inquiry groups–the domestic violence service practitioners and the IMH inter-agency practitioners–all group members were involved in the inquiry group structure and design; invited to reflect on their practice in regard to ACEs routine enquiry; and invited to consider and undertake actions in regard to implementation between inquiry group meetings. The practitioners from the domestic violence service had extensive experience, accreditation and professional recognition in areas of domestic and sexual violence, substance use and childhood legacies of trauma, while those in the IMH inter-agency group had a range of professional expertise including social work, infant mental health and substance use. Prior to the fieldwork, a 1-day ACEs routine enquiry training was delivered by an independent training consultant to both the domestic violence organization staff and all members of the IMH group.

Ten of the fourteen practice staff who were invited agreed to participate ($n = 10$ domestic violence practitioners). Three domestic violence service practitioner inquiry groups were run at 4 to 6-week intervals during the ACEs routine enquiry process, with each inquiry group running for approximately 90 min. Each inquiry group was audio recorded, with the consent of participants. Themes for each inquiry group were agreed with participants, and the practitioners were encouraged to describe their practice and skills, as well as explore the experience of enacting ACEs routine enquiry with service users. The members

of the inter-agency IMH practitioner inquiry group were drawn from a regional IMH working group. The seven who decided to participate worked in social work, family support, community and substance misuse services ($n = 7$ inter-agency IMH practitioners). Two IMH inter-agency inquiry group sessions were run, with a 4-week interval, with each group running for approximately 90 min. Each inquiry group was audio-recorded with the consent of participants. As the practitioners came from a range of agencies, the discussion and themes for this inquiry group focused on the feasibility and possibility of integrating ACEs routine enquiry into their existing work and organizations. The inquiry groups were facilitated by the lead author, with one IMH inter-agency group co-facilitated by both the first and second authors.

Data Analysis

The quantitative analysis is based on data from the aforementioned ten-question ACEs surveys completed by sixty women. The questionnaires were administered by the organization's staff, but no personal information was included on survey papers and the data was anonymous to the research team. It was agreed through collaborative discussion with the organization's practitioners that the questionnaire would be explained to women and given to them to complete on their own, with the practitioner staying present only to answer any queries or talk through any of the questions if asked. Where there were literacy or language issues, the practitioner helped the woman to complete the questionnaire by reading the questions or particular questions upon request.

In the analysis, each anonymous respondent was accorded a sum of the number of ACEs experienced. In keeping with the existing empirical literature using ACEs survey data (9, 39), these ACEs totals were also grouped into four ACEs "count" categories: 0 ACEs; 1 ACE; 2-3 ACEs; or 4+ ACEs experienced. The ACEs survey question results were divided into bivariate data ("child maltreatment" vs. "childhood home environment") and descriptive analysis on the prevalence of each specific type of adverse experience within those categories was conducted. Results from the study sample were also compared to the results of ACEs studies in Wales (9) and the United States (3, 45) in order to understand the ways in which the prevalence (and types) of ACEs experienced by women accessing domestic violence services differed from the ACEs experience of broader populations in primary care settings. The order of prevalence of individual ACEs types self-reported among the survey participants was also specifically noted, along with the associative patterns among the most common ACEs type to other ACEs experienced, in order to identify trends within this particular cohort of women and to inform local practitioners moving forward.

The practitioner inquiry groups generated a good deal of qualitative data which was analyzed thematically (46) to explore key issues emerging from the data. To reduce the data and make it more manageable (47), two levels of coding, open and axial (48) were conducted. The first step allowed for categories to be identified and assigned to elements of the recorded material and the second step allowed for relationships between the categories to be established (48). The practitioners did discuss their engagement with clients and reported on anonymized interactions within the inquiry groups. It had been agreed that in these discussions, all identifying client details would also be absent from the discussion. The practitioners were anonymized within the analysis stage.

TABLE 2 | Prevalence of ACEs, by type, experienced by study service users (%) ($n = 60$) (2019).

Child emotional abuse	50%
Alcoholism (in household)	40%
Mental illness (in household)	38%
Child physical abuse	32%
Violence (in household)	32%
Child sexual abuse	27%
Parental breakup	25%
Drug misuse (in household)	13%
Incarceration (in household)	8%
Child neglect	7%

Respondents able to select as many as applied.

RESULTS

ACEs Routine Enquiry: Questionnaire Findings

The survey results reveal ACEs to have a significant presence among the domestic violence organization's service users. The mean ACEs score for the women surveyed was 2.7. While 18 per cent of service users reported having experienced no ACEs in their childhood, over one-half (58 per cent) of the 60 service users who participated experienced at least two ACEs in their childhood. One-third of all respondents reported experiencing four or more ACEs. Service users also reported significant levels of overlap between direct child maltreatment and adverse home environments. Reported parental substance misuse with the home environment was substantially higher than in general populations studies (1).

Table 2 identifies the prevalence of each type of ACEs across the service users participating in the routine enquiry process. Half of the service users surveyed experienced verbal and/or emotional abuse as a child. Over half (53 per cent) lived in a household where substances were misused (40 per cent with alcohol abuse and 13 per cent with drug misuse). Mental illness[1] in the household was the third most common type of ACE experienced by service users. Violence in the household, in the form of physical abuse of the child or physical abuse of other family members, affected one-third of respondents. Sexual abuse and parental breakup follow closely thereafter, affecting at least one-quarter of service users surveyed.

Furthermore, the most prevalent ACEs experienced did not happen in isolation – each strongly overlapped with one another. Of all the respondents who reported experiencing

[1]This includes living with a parent or family member who was depressed, suicidal, or experiencing mental health issues.

emotional/verbal abuse as a child ($n = 30$), 60 per cent also reported alcoholism in their household, 53 per cent reported having experienced physical abuse, 50 per cent reported domestic violence in the household, 46 per cent reported mental illness in the household, and 40 per cent reported experiencing sexual abuse. ACEs routine enquiry is best able to capture exposure and patterns of association; it offers much less in terms of identifying the intensity or duration of adverse experiences and does not offer a causal link between ACEs in childhood and later life outcomes. In terms of quantitative data, the sample size ($n = 60$) is also limited and representative of one organization. It provides valuable descriptive information on the cohort of service users who participated, but is not necessarily a portrait of the whole population of women in Ireland who seek help from similar organizations. What these findings do offer, though, are early indications of both ACEs prevalence as well the types of ACEs that most define the experience of the women presenting to the domestic violence service; the next section identifies the central themes that emerged in terms of how this routine enquiry work with service users was performed in practice.

Practice Themes

Given the routine enquiry results, the practitioner experiences of seeking to identify and respond to women's childhood trauma becomes key in how women might best be supported in their recovery from both substance use and domestic violence. Three key themes emerged from the dual inquiry group processes with practitioners; (1) discussing ACEs and responding to disclosure; (2) parental and personal substance misuse experiences in relation to earlier trauma; and (3) challenges for inter-agency work.

Discussing ACEs and Responding to Disclosure

The practitioners had initially queried whether, given their experience and expertise, an ACEs routine enquiry was needed to explore or discuss these issues of childhood trauma with women, but subsequently agreed that the ACEs questionnaire provided a useful framework:

> Some of the women don't realize that their experience is good or bad, or that it has had such a profound impact on them. I often found the woman did not realize that their childhood experiences and current lifepaths are linked. (DV6)

For one practitioner, the ACEs routine enquiry helped refine what she described as her "traditional intuitive practice":

> As workers in the field, we know that childhood impacts women, but there's a big difference between having a suspicion and having a researched framework to put that in… and that deepens, certainly, my own practice. It's not anymore something I think, or intuitively feel when I support a woman… [that] she had a tough childhood, which we would so regularly do with our clients before… ACEs has put that framework on my traditional practice. (DV1)

Consideration was given to women who had low numbers of, or no ACEs, with the practitioners questioning whether there were other factors that may have impacted on health and relationships. They cited a number of cases where a single traumatic incident such as a random assault outside of the home or bullying by a teacher in school actually had a significant long-term impact on the women they worked with. There was also a general conclusion that the ACEs routine enquiry did not lend insight into the gendered cultural and societal expectations women may experience as children, though the ACEs routine enquiry did provide an opportunity to discuss this with women, at times providing a window of opportunity for assisting insight into life patterns:

> Sometimes your work is so busy you don't get the opportunity to go back into the past or... because there's other issues that you're dealing with, but for one woman that I'm thinking about, well her mum, she came from an abusive relationship. Her dad was abusive to her and she (the woman) got animated and said, "Why did my mother stay there? She wasted 10 years of her life. Now look at me. I'm doing the exact same". (DV6)

The practitioners also felt acknowledging a woman's past experiences and highlighting her emotional and practical strengths and resilience was really important, but also supporting her to see a different life path for herself, as one practitioner outlined:

> One woman who ticked all the boxes, now she became really, really upset, but she already had identified that all those adverse child experiences had affected her life. She was really interested in resilience, and she got it that it didn't define her, which was really interesting - just looking at all of those questions, ticking all those boxes, she said it really reinforced that her childhood really affected her and how she has lived her life, how she has parented. But she can see that she can make changes. But it was like a clear picture for her. (DV8)

The practitioners highlighted a number of cases where women had older children (sometimes in care settings or dealing with the impact of their own ACEs), concluding that in such instances completing the ACEs routine enquiry should not reinforce guilt or shame. The workers agreed that guilt is an emotion that should be named and talked about, as it is so often a feature for women who have experienced domestic violence and substance use:

> But I think guilt with domestic violence goes hand in hand. So again, even when you're supported, the guilt is going to be there regardless of staying for the children. Guilt is so key to domestic violence, never mind where there is substance use too. (DV2)

Agency Remit

The infant mental health practitioners were not engaged in a systematic implementation of ACEs routine enquiry, with some contemplating introducing it, and others who using it in a briefer format within client assessments. For the practitioners, the role and remit of their agency was a key determinative factor in whether they should consider integrating ACEs routine enquiry into their work. It was agreed that agencies needed to have client-centered practices; have the resources to support women

effectively and have remit in regard to working with her and her children if she has them. As one practitioner highlighted, the purpose of the agency should influence the decision to consider implementing ACEs routine enquiry:

> There has to be a consideration for the agency, about what's the purpose of this, so why would we do this as opposed to any other agency that those mothers might be in contact with. Well, she has a relationship with us and we think we could positively influence her parenting of her own kids or dealing with some issues in her life by doing that routine inquiry. (IMH3)

A recurring theme across the practitioners from all the agencies about implementing ACEs routine enquiry was the lack of certainty that resources would be there to respond to client issues that were raised. While referral pathways for counseling and other therapeutic interventions currently exist, it was felt these were limited, often with significant waiting lists or limits on the duration of the intervention. The infant mental health practitioners also debated whether the ACEs tool had value over other interventions or ways of considering trauma:

> I think I would want to know, well, we have some understanding of why this would be more useful than just doing what we do–because I talk to women about these issues anyway. (IMH2)

Parental and Personal Substance Misuse Issues

A significant aspect for the practitioners was the degree and mechanisms by which the women articulated greater understanding and empowerment from the process of completing the ACEs routine enquiry and from the subsequent conversations, especially in relation to substance misuse. The practitioners agreed that the ACEs routine enquiry process often helped ameliorate the self-blame women felt–about their lives, their substance use and negative impacts on their own children–rather than increasing it, which had been an initial concern. One practitioner maintained that the understanding generated by ACEs routine enquiry opened a conversation about about self-blame for one woman as she was able tease out with how certain decisions and choices were made:

> [She] took it on as empowering, as understanding, a self-understanding. . . .It's the release of self-blame there that she feels: "There was a reason why I took this bad boyfriend I took that bad husband, I started drinking, I started using substances." (DV5)

In a case where there was long term inter-related domestic violence and substance use, the practitioners agreed that not only was the process empowering for the woman, allowing her to advocate for her own children, but also allowed her to start to move on from her own experiences:

> It put structure on her past, but it also gave her the strength to move forward. I think she argued it with social workers–that, "I am the way I am because of what happened to me and my childhood and now that's going to happen to my children if things don't change." That was her argument. So, it was amazing to hear and watch that process taking place. Now she's a long way down the road in her process but it was great for her, and she actually said, which was massive, "I have to let go of the experiences that happened to me as a child because, how can I be a better mother if I don't let go of them?" (DV6)

This raises the question of how women may be supported to access further services and interventions, and the practitioners felt that the reflective conversations with women could increase motivation for positive change, In one case, according to the practitioner, there was an immediate link for the woman in terms of intergenerational patterns and substance use and she requested an appointment with the substance misuse service:

> I would be very aware that her ACEs would be high. She had a seven score. I knew that it would be that at least, but her father was alcohol dependent, and she made that link, which was so quite amazing, between her father being a drinker, she herself would be alcohol dependent ….. Now I genuinely feel that link would not have happened because she didn't want her kids to see her like she saw her father, without her doing the ACEs routine enquiry first. (DV3)

For some of the practitioners, completing the ACEs routine enquiry had a profound effect on the woman they were working with:

> She was like, "Oh, God. I'm ticking them all, nearly." And then she was saying "Yes, I did have such a dysfunctional family and the pain I was in, and that all I ever wanted was to feel loved or to have someone to love me," and how she ended up in domestic violence relationships trying to feel loved as well. And we spoke about the substance misuse being a reaction to all the pain she had. And it was really like, "I can see how my life went down that route because of what I've experienced as a child." And this tool have really helped her to say, "Okay, I've had a dysfunctional family; it's been unbelievable. But by God, it's not going to happen to my children. That was then and this is now. I'm working so hard now." I just found it extremely empowering for both of us. (DV5)

Given the practitioners were drawn from an infant mental health networking group, there was significant discussion around supporting mothers with new babies where the mother has substance use issues. There were concerns that women could be dealing with a lot already, even before the inclusion of ACEs routine enquiry. It was highlighted that women had often already provided some of the information on the ACEs questionnaire as part of their referral to some agencies, and if the referral is in regard to infant mental health and parenting issues, then the nature of the ACEs questionnaire might not be helpful:

> Issues usually come up during the course of the conversations with parents, out of their story, and I wonder that if you push the stories, the questions too much, they would back off. (IMH 6)

However, the point was also made that the evidence base underpinning the ACEs questionnaire is helpful in advocating for children, where their mothers have completed a routine enquiry and her substance use had previously just been viewed as problematic:

> It's very useful when you're fighting for services or you're seeking a case conference and you can say, well, yes we have the research now to back it up or this is the word to describe what this young child is going through. Or why this adult can't care for this child. So I find it very helpful to explain to people what it is because for a long time, people weren't giving it the attention it deserves. [Previously] she (the mother) was just the problem. (DV3)

Challenges for Inter-Agency Work

While the practitioners felt those in related agencies in the community would take women's experiences more seriously because of the evidence base evident in relation to ACEs, this was tempered by a concern that the ACEs routine enquiry could be implemented in agencies without important aspects of support, empowerment and follow-up. There were also concerns that a woman would be "reduced" to her ACEs score or would be requested to complete the routine enquiry within several agencies. It was felt the logistics needed to be worked out at inter-agency level so that the implementation would be effective. The practitioners also highlighted the importance of good training prior to implementation, and time and resources being allocated to practitioner skill development to ensure a positive experience for those being invited to complete ACEs routine enquiry:

> I think that there is a risk that ACEs will broaden itself out. It might be better to keep ACEs within agencies that would give the woman the support and the acknowledgment of the trauma. If feels like its nearly at the point where people in the supermarket are doing ACEs enquiry. That's not good, in my opinion, there's risk. (DV4)

In particular the practitioners were concerned about the level of supports women might need after a disclosure and how an agency might enact a client-centered response:

> If you provide or implement a framework which allows her to acknowledge some of her vulnerabilities, then you have a lovely piece of work and a responsibility to support her... but we need to think about how those vulnerabilities are perceived, and understood, and talked about to others. Because they're hers and she has a right to boundary them. (DV1)

The practitioners also voiced the concern that women may feel there were implications for acknowledging some childhood experiences and subsequent behaviors, depending on the remit of the agency:

> And I wonder how effective and truthful the response would be if it is a social worker carrying it out, because it's just a different support session and people are going to be terrified of, if I tick this, what will this result in? (IMH5)

The practitioners had a wider, more philosophical discussion about the future of services delivery and how ACEs might fit into that. It was pointed out that it can be much harder for statutory agencies to innovate and introduce new practices. One practitioner drew the analogy of the statutory agencies being like a large tanker, given organizational infrastructures and numbers of staff, and that–with respect to making changes in approaches to working with and offering support services for families, children and trauma–it can take "nine miles for one of those tankers to turn or go back" (IMH1). Working with this analogy, the group discussed how smaller NGOs and community agencies can essentially act as smaller, more nimble boats providing more tailored family support. As the practitioner described:

> I think if we were to go with this analogy, which is very powerful actually…There's people on the big ship [i.e., statutory agencies] who are looking to see what's happening and waiting for the turn to happen…[but] it's also empowering because… there's more mobile craft [i.e., smaller community agencies] that are starting to innovate and pick people up. (IMH1)

DISCUSSION

The routine enquiry results indicated ACEs to have a significant presence among women accessing the domestic violence service. Over one-half (58 per cent) of service users experienced two or more ACEs in their childhood and one-third (33 per cent) experienced four or more. Just 18 per cent of service users reported having experienced no ACEs in childhood. This high prevalence tracks with prior findings in the literature (11, 16) and it is important to note that these results are much higher than that of the general population samples accessing primary health care settings in previous studies (1). It is widely agreed that ACEs "scores" revealed in these screenings do not offer a causal link between ACEs in childhood and later life outcomes; rather, they are indications of both ACEs prevalence as well as the types of ACEs that most define the experience of the women presenting to a domestic violence service (18).

Given that the ACEs questions were primarily designed as a research tool, not a personal intervention tool (8), it falls to organizations and practitioners to consider its usefulness and then subsequently attend to developing an appropriate practice response. Practitioners from the range of agencies raised concerns related to "individualization" of women's ACEs scores and the provision of appropriate trauma informed responses to client disclosures. There were fears that women; "would become their ACE score;" that support services may not be adequately available to those who disclose traumatic experiences, or only for those who report a "high" ACEs score of more than 4; or that clients may be forced to re-tell their ACEs history to many different agencies. Child maltreatment in the form of verbal abuse was the most prevalent ACEs type, followed closely by physical abuse (of both the child and of other members in the household) and substance misuse (alcohol and/or drugs). While the ACEs "scores" revealed in these screenings do not offer a causal link between ACEs in childhood and later life outcomes, they do provide indications of both ACEs prevalence as well as the types of ACEs that most define the experience of the women presenting to the service.

An ever-present challenge–and one relevant for incorporating ACEs into trauma-informed care and community practice–is distinguishing between individual-level and group- or population-level application. Kelly-Irving and Delpierre (8)

note that while the promotion of ACEs awareness in health, educational, and service settings is often both useful and commendable, placing a focus on an individual's ACEs score poses ethical questions and is a departure from the spirit of Felitti et al. (3). The risk is that the need for structural change, more health interventions and addressing of the determinants of health become obscured and individual level interventions privileged (8). Finkelhor [(49), p. 175] is careful to point out that "high ACEs scores…are not the same as trauma symptoms" and therefore cannot be taken as an indicative measure (on their own) for individual intervention. Therefore, both client-led responses and how agencies can work together to co-ordinate responses and interventions, while also protecting the privacy of service users, become key. In the absence of an emphasis on interpreting ACEs in a broader population-level context in the push for better integrated systems of care, prevention, and early intervention, individuals looking at their own ACEs scores may face fear over their future outcomes, stigma from others about their personal circumstances, and a burden of a now "individualized" problem. This was particularly pertinent when there was an intersection of domestic violence, substance use, and child welfare issues and concern of future requirements to disclose or not be able to control sharing of your ACEs information–most especially where child protection services may potentially be involved (50). For instance, could a high parental ACE score be utilized against a mother if there were child welfare concerns or if there were custody and access court proceedings? Kelly-Irving and Delpierre's [(8), p. 453] comment is pertinent, that ACEs should not "be used to incriminate parents, but rather reveal the conditions, particularly social conditions, in which parents and children live and how they cope."

Practitioner skills in opening conversations about historical trauma in the lives of women with substance use histories has been found to be crucial (51). In this study, identifying experiences of parental substance use and/or their own substance use through the ACEs routine enquiry platform provided a basis for conversations and discussions about intergenerational patterns, positive change and resilience that may not have otherwise happened (51, 52). Given the intersection of domestic violence and substance use can be very challenging for a single agency to address (53), the ACEs routine enquiry was found to be a constructive and useful mechanism to make links with women about their past traumas and current life trajectories, including any misuse of substances. While the "simplicity" of the ACEs questionnaire was originally a concern for those implementing it, in practice, this became a strength. Once in use, the ACEs questionnaire was not viewed as an all-encompassing solution to address childhood legacies of trauma, but instead as a mechanism for opening a topic or aspect of a client's life patterns (21, 52).

The practitioners in this study were adamant the ACEs routine enquiry needed to be embedded into existing client-centered approaches (54), in order to avoid many of the challenges experienced by other agencies (33). The ACEs routine enquiry was utilized as a tool within relationships already based on empowerment and collaboration, which perhaps may differ from wider health or social service interventions (39). There were many examples of positive impacts from women completing the ACEs routine enquiry, with practitioners reporting the potential of ACEs to provide a simple and explainable framework for considering the impact of childhood experiences, a key challenge for addressing the needs of women dealing with intersectional issues (21). One important aspect was the potential for practitioners to work with women to address guilt and self-blame, particularly where she had children who had subsequently experienced ACEs. Igniting both desire and action to seek further supports to address the impact of childhood trauma for herself and for her children based on an understanding of past experiences is a complex process but one that can support recovery, and may shift practitioners beyond supporting women on day to day or single issues (53).

These are aspects of practice that may be difficult to capture in terms of quantifiable outcomes (55), and may require long-term trauma-informed interventions to address (56). Importantly, though, the impact on practitioners of support work needs to be attended to in the context of trauma-informed service delivery. The routine enquiry process revealed a significant prevalence of ACEs, both in terms of direct maltreatment and adverse home environments experienced as a child, among the service users of this organization. The practitioners here gave numerous examples of disclosures and subsequent conversations that had the potential to be both emotionally transformative for the client, but also emotionally impactful on the practitioner. This highlights an important question for those engaged in support work about both the boundaries and limitations of such work, and the impact on the practitioner of working with such issues (2). Ultimately, inter-agency responses may need to differentiate between being ACEs-aware vs. actively implementing ACEs routine enquiry within their own service and a recognition that deciding between these two paths must be based on the ability of the agency to both advocate for women and provide trauma-informed responses (21).

As with any practice-based innovation, change requires consideration of the evidence, development and implementation of an intervention, practitioner training and organizational support. The practitioners highlighted two aspects in particular that proved helpful for this work: the capacity of community agencies to access small, relevant funding streams for such work, and the ability of community agencies to be more flexible in relation to practice changes due to their size and remit. This suggests that NGOs and community organizations may be better placed to pilot or innovate practice changes where there are experiences of childhood adversity, and later domestic violence and substance use (57). This project was completed with a limited budget, but its successful execution benefited and relied upon on existing robust supervision and support structures within the host organization, and strong, pre-existing community and inter-agency relationships among all of the participating IMH practitioners. This network and infrastructure may not always be in place, which adds to funding considerations. Follow-on evaluations of impact and outcomes for practice change also require continuous funding streams that may potentially be separate from the original project funding but are of importance to understanding critical learnings for future endeavors (53).

CONCLUSION

This research sought to identify the level of ACEs for women accessing a domestic violence service and explore both the enactment and responses by practitioners to ACEs routine enquiry. It also sought to consider the possibilities in regard to the use of ACEs routine enquiry with a range of practitioners who had an infant mental health remit. As such, this study was situated in a very specific setting. It took an action research approach to exploring the practice responses aspect of the project, collaboratively working with practitioners to build an understanding of the relevance, usefulness and responses to ACEs routine enquiry. The findings of this study offer considerations and implications for a number of groups: service users, practitioners, organizations (both individually and in an inter-agency context), funders, and future researchers.

This study has several limitations. The routine enquiry questionnaire has the potential to provide a level of insight into the prevalence and types of ACEs among domestic violence service users, however it is best suited to capturing exposure, but is not intended to make a causal link between ACEs experienced in childhood and subsequent life outcomes (8). The results in regard to practice responses are limited to the views of the practitioners, and do not include the views of the women who completed the ACEs routine enquiry, nor their perceptions of subsequent service responses. Action research is by its nature both generative and continuous, so often requires further cycles of research and inquiry particularly where there are complexity and emotional labor are key features of the research setting (58).

DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University College Dublin Human Research Ethics Committee. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

SM was PI on the study and oversaw, lead on research design, data collection and analysis, and writing up of all research outputs. MC analyzed the quantitative data and wrote up these results, as well as contributing to the literature review, discussion, and conclusion. MB contributed to the thematic analysis, writing up of the qualitative results, and discussion on this manuscript. All authors contributed to the article and approved the submitted version.

FUNDING

This research was partially funded by TUSLA, the Child and Family Agency, Ireland. The funder provided a small grant to support the domestic violence agency to consider and explore the role of ACEs within practice development within the agency.

REFERENCES

1. Bellis MA, Hughes K, Jones A, Perkins C, McHale P. Childhood happiness and violence: a retrospective study of their impacts on adult well-being. *BMJ Open.* (2013) 3:e003427. doi: 10.1136/bmjopen-2013-003427
2. Morton S, Hohman M. "That's the Weight of Knowing": practitioner skills and impact when delivering psychoeducational group work for women who have experienced IPV. *Soc Work Groups.* (2016) 39:277–91. doi: 10.1080/01609513.2015.1052915
3. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. the adverse childhood experiences (ACE) study. *Am J Prev Med.* (1998) 14:245–58. doi: 10.1016/S0749-3797(98)00017-8
4. O'Neill L, Fraser T, Kitchenham A, McDonald V. Hidden burdens: a review of intergenerational, historical and complex trauma, implications for indigenous families. *J Child Adolesc Trauma.* (2018) 11:173–86. doi: 10.1007/s40653-016-0117-9
5. Narayan AJ, Atzl VM, Merrick JS, Harris WW, Lieberman AF. Developmental origins of ghosts and angels in the nursery: adverse and benevolent childhood experiences. *Advers Resil Sci.* (2020) 1:121–34. doi: 10.1007/s42844-020-00008-4
6. O'Loughlin M, Charles M, Atkinson J. *Fragments of Trauma and the Social Production of Suffering: Trauma, History, and Memory*. Lanham, MD: Rowman and Littlefield (2015).
7. Hartas D. Assessing the foundational studies on adverse childhood experiences. *Soc Policy Soc.* (2019) 18:435–43. doi: 10.1017/S1474746419000034
8. Kelly-Irving M, Delpierre C. A critique of the adverse childhood experiences framework in epidemiology and public health: uses and misuses. *Soc Policy Soc.* (2019) 1–12. doi: 10.1017/S1474746419000101
9. Bellis MA, Ashton K, Hughes K, Ford K, Bishop J, Paranjothy S. *Welsh Adverse Childhood Experience (ACE) Study: Adverse Childhood Experiences and Their Impact On Health-Harming Behaviours in the Welsh Adult Population.* Cardiff Public Health Wales NHS Trust (2015).
10. Gutierres SE, Van Puyumbroeck C. Childhood and adult violence in the lives of women who misuse substances. *Aggress Violent Behav.* (2006) 11:497–513. doi: 10.1016/j.avb.2006.01.010
11. Ørke EC, Bø Vatnar SK, Bjørkly S. Risk for Revictimization of intimate partner violence by multiple partners: a systematic review. *J Fam Violence.* (2018) 33:325–39. doi: 10.1007/s10896-018-9952-9
12. Burstow P, Newbigging K, Tew J, Costello B. *Investing in a Resilient Generation: Keys to a Mentally Prosperous Nation*. Executive Summary and Call to Action. Birmingham: University of Birmingham (2018).
13. TUSLA (Child and Family Agency). *The Prevention, Partnership, and Family Support Programme: Collaborative Leadership for Better Outcomes.* Dublin (2015). Available online at: https://www.tusla.ie/uploads/content/PPFS_Low_Prevention_Services_Brochure.pdf (accessed September 2019).
14. Bandura A. *Aggression: A Social Learning Analysis*. Englewood Cliffs, NJ: Prentice Hall (1973).
15. McRae L, Daire AP, Abel EM, Lambie GW. A Social learning perspective on childhood trauma and same-sex intimate partner violence. *J Counsel Dev.* (2017) 95:332–8. doi: 10.1002/jcad.12147
16. Guedes A, Mikton C. Examining the intersections between child maltreatment and intimate partner violence. *West J Emerg Med.* (2013) 14:377–9. doi: 10.5811/westjem.2013.2.16249
17. Leza L, Siria S, López-Goñi JJ, Fernández-Montalvo J. Adverse childhood experiences (ACEs) and substance use disorder (SUD): a scoping review. *Drug Alcohol Depend.* (2021) 221:108563. doi: 10.1016/j.drugalcdep.2021.108563
18. Fuller-Thomson R, Roane JL, Brennenstuhl S. Three types of adverse childhood experiences, and alcohol and drug dependence among adults: an

investigation using population-based data. *Subst Use Misuse.* (2016) 51:1451–61. doi: 10.1080/10826084.2016.1181089
19. Brown MJ, Perera RA, Masho SW, Mezuk B, Cohen SA. Adverse childhood experiences and intimate partner aggression in the US: sex fostering understanding, empowering change differences and similarities in psychosocial mediation. *Soc Sci Med.* (2015) 131:48–57. doi: 10.1016/j.socscimed.2015.02.044
20. Chandler GE, Kalmakis KA, Murtha T. Screening adults with substance use disorder for adverse childhood experiences. *J Addict Nurs.* (2018) 29:172–8. doi: 10.1097/JAN.0000000000000233
21. Boppre B, Boyer C. "The traps started during my childhood": the role of substance abuse in women's responses to adverse childhood experiences (ACEs). *J Aggress Maltreat Trauma.* (2021) 30:429–49. doi: 10.1080/10926771.2019.1651808
22. Dong M, Anda RF, Felitti VJ, Dube SR, Williamson DF, Thompson TJ, et al. The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse Neglect.* (2004) 28:771–84. doi: 10.1016/j.chiabu.2004.01.008
23. Lyons-Ruth K, Block D. The disturbed caregiving system: relations among childhood trauma, maternal caregiving, and infant affect and attachment. *Infant Ment Health J.* (1996) 17:257–75. doi: 10.1002/(SICI)1097-0355(199623)17:3<257::AID-IMHJ5>3.0.CO;2-L
24. Curtin M, Madden J, Staines A, Perry IJ. Determinants of vulnerability in early childhood development in Ireland: a cross-sectional study. *BMJ Open.* (2013) 3:2387. doi: 10.1136/bmjopen-2012-002387
25. Horgan J. *Parental Substance Misuse: Addressing its Impact on Children – A Review of the Literature*. Dublin: The Stationery Office/National Advisory Committee on Drugs (2011).
26. Cheong EV, Sinnott C, Dahly D, Kearney P. Adverse childhood experiences (ACEs) and later-life depression: perceived social support as a potential protective factor. *BMJ Open.* (2017) 7:e013228. doi: 10.1136/bmjopen-2016-013228
27. Carr A, Dooley B, Fitzpatrick M, Flanagan E, Flanagan-Howard R, Tierney K, et al. Adult adjustment of survivors of institutional child abuse in ireland. *Child Abuse Neglect.* (2010) 34:477–89. doi: 10.1016/j.chiabu.2009.11.003
28. McDonnell CG, Valentino K. Intergenerational effects of childhood trauma: evaluating pathways among maternal ACEs, perinatal depressive symptoms, and infant outcomes. *Child Maltreat.* (2016) 21:317–26. doi: 10.1177/1077559516659556
29. Hardcastle K, Bellis MA, Sharp C, Hughes K. Exploring the health and service utilisation of general practice patients with a history of adverse childhood experiences (ACEs): an observational study using electronic health records. *BMJ Open.* (2020) 10:e036239. doi: 10.1136/bmjopen-2019-036239
30. Gilliver C. Trauma-informed care in response to adverse childhood experiences. *Nursing Times.* (2018) 114:46–9.
31. Menschner C, Maul A. *Key Ingredients for Successful Trauma Informed Care Implementation.* Trenton, NJ: Center for Health Care Strategies Inc (2016). Available online at: http://www.chcs.org/media/ATC-whitepaper-040616-rev.pdf (accessed March 2019).
32. Bath H. *The Three Pillars of TraumaWise Care: Healing in the Other 23 Hours1*. Reclaiming Children and Youth (2015). p. 5.
33. McGee C, Hughes K, Quigg Z, Bellis M, Larkin W, Lowey H. *A Scoping Study of the Implementation of Routine Enquiry about Childhood Adversity (REACh). Liverpool.* Center for Public Health, Liverpool John Moores University (2015). Available online at: http://www.cph.org.uk/wp-content/uploads/2015/07/REACh-Scoping-Study-BwD.pdf ISBN: 978-1-910725-04-7 (web) (accessed March, 2019).
34. Najavits LM. Treatment of posttraumatic stress disorder and substance abuse: clinical guidelines for implementing seeking safety therapy. *Alcohol Treat Q.* (2004) 22:43–62. doi: 10.1300/J020v22n01_04
35. Quigg Z, Wallis S, Butler N. *Routine Enquiry About Adverse Childhood Experiences Implementation Pack Pilot Evaluation (Final Report)*. Liverpool: Public Health Institute and Liverpool John Moores University (2018).
36. Hickey G, Smith S, O'Sullivan L, McGill L, Kenny M, MacIntyre D, et al. Adverse childhood experiences and trauma informed practices in second chance education settings in the Republic of Ireland: an inquiry-based study. *Child Youth Serv Rev.* (2020) 118:105338. doi: 10.1016/j.childyouth.2020.105338
37. Edwards KM, Murphy S, Palmer KM, Haynes EE, Chapo S, Ekdahl BA, et al. Co-Occurrence of and recovery from substance abuse and lifespan victimization: a qualitative study of female residents in trauma-informed sober living homes. *J Psychoactive Drugs.* (2017) 49:74–82. doi: 10.1080/02791072.2016.1273566
38. Morton S, Hohman M, Middleton A. Implementing a harm reduction approach to substance use in an intimate partner violence agency: practice issues in an irish setting. *Partner Abuse.* (2015) 6:337–50. doi: 10.1891/1946-6560.6.3.337
39. Hardcastle K, Bellis MA. *Asking About Adverse Childhood Experiences (ACEs) in Health Visiting: Findings From a Pilot Study*. NHS Wales (2019). Available online at: http://www.wales.nhs.uk/sitesplus/documents/888/Asking%20about%20ACEs%20in%20Health%20Visiting%20-%20Pilot%20Evaluation%20Report.pdf (accessed March 2022).
40. Yorks L, Nicolaides A. The role conundrums of co-inquiry action research: lessons from the field. *Syst Pract Action Res.* (2007) 20:105–16. doi: 10.1007/s11213-006-9053-1
41. Caplan T, Thomas H. The forgotten moment: Therapeutic resiliency and its promotion in social work with groups. *Soc Work Groups.* (2002) 24:5–26. doi: 10.1300/J009v24n02_02
42. Pearlman LA, Saakvitne KW. *Trauma and the Therapist: Countertransference and Vicarious Traumatization in Psychotherapy With Incest Survivors*. New York, NY: WW Norton and Co (1995).
43. Mesmer-Magnus JR, DeChurch LA, Wax A. Moving emotional labor beyond surface and deep acting: a discordance–congruence perspective. *Organ Psychol Rev.* (2012) 2:6–53. doi: 10.1177/2041386611417746
44. Morton S, Curran M, Barry O'Gorman M. Researching adverse childhood experiences in a domestic violence service: the role of co-operative inquiry groups in practice development and change. *Groupwork.* (2021) 30:48–76. doi: 10.1921/gpwk.v30i1.1517
45. Merrick MT, Ford DC, Ports KA, Guinn AS. Prevalence of adverse childhood experiences from the 2011-2014 behavioral risk factor surveillance system in 23 states. *JAMA Pediatr.* (2018) 172:1038–44. doi: 10.1001/jamapediatrics.2018.2537
46. Hardwick L, Worsley A. *Doing Social Work Research*. SAGE Publications Ltd (2011). doi: 10.4135/9781446269602
47. Miles MB, Huberman AM. *Qualitative Data Analysis: An Expanded Sourcebook (2nd ed.)*. Sage Publications, Inc (1994).
48. Strauss A, Corbin J. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory (2nd ed.)* Sage Publications, Inc (1998).
49. Finkelhor D. Screening for adverse childhood experiences (ACEs): Cautions and suggestions. *Child Abuse Negl.* (2018) 85:174–9. doi: 10.1016/j.chiabu.2017.07.016
50. Morton S, MacDonald S, Chrstophers L. *Responding to Women with Complex Needs Who Use Substances: A briefing paper*. Research Repository UCD. Dublin: Merchants Quay Ireland (2020).
51. Lotzin A, Buth S, Sehner S, Hiller P, Pawils S, Metzner F, et al. Reducing barriers to trauma inquiry in substance use disorder treatment - a cluster-randomized controlled trial. *Subst Abuse Treat Prev Policy.* (2019) 14:23. doi: 10.1186/s13011-019-0211-8
52. Webb L, Clayson A, Duda-Mikulin E, Cox N. 'I'm getting the balls to say no': Trajectories in long-term recovery from problem substance use. *J Health Psychol.* (2022) 27:69–80. doi: 10.1177/1359105320941248
53. Fox S. […] you feel there's nowhere left to go: the barriers to support among women who experience substance use and domestic abuse in the UK. *Adv Dual Diagn.* (2020) 13:57–71. doi: 10.1108/ADD-09-2019-0010
54. Lambert S, Gill-Emerson G. *Moving Towards Trauma-Informed Care. A Model of Research and Practice.* Cork: Cork Simon Community (2017).
55. Morton S, O'Reilly L. Challenges, relationship and outcomes in low-threshold drug services. *Drugs Alcohol Today.* (2019) 19:113–22. doi: 10.1108/DAT-05-2018-0028
56. Bailey K, Trevillion K, Gilchrist G. What works for whom and why: a narrative systematic review of interventions for reducing post-traumatic stress disorder and problematic substance use among women with experiences of interpersonal violence. *J Subst Abuse Treat.* (2019) 99:88–103. doi: 10.1016/j.jsat.2018.12.007

57. Longhi D, Brown M, Barila T, Reed SF, Porter L. How to increase community-wide resilience and decrease inequalities due to adverse childhood experiences (ACEs): Strategies from Walla Walla, Washington. *J Prev Interv Community*. (2021) 49:43–59. doi: 10.1080/10852352.2019.1633071
58. Ramos S, Costa P, Passos AM, Silva SA, Sacadura-Leite E. Intervening on burnout in complex organizations – the incomplete process of an action research in the hospital. *Front psychol*. (2020) 11:2203–2203. doi: 10.3389/fpsyg.2020.02203

Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

frontiers | Frontiers in Psychiatry

TYPE Original Research
PUBLISHED 02 August 2022
DOI 10.3389/fpsyt.2022.937228

OPEN ACCESS

EDITED BY
Anette Skårner,
University of Gothenburg, Sweden

REVIEWED BY
Kristina Alstam,
University of Gothenburg, Sweden
Clarice Madruga,
UNIFESP, Brazil

*CORRESPONDENCE
Emy Bäcklin
emy.backlin@hig.se

SPECIALTY SECTION
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

RECEIVED 06 May 2022
ACCEPTED 05 July 2022
PUBLISHED 02 August 2022

CITATION
Bäcklin E (2022) Me too! A case study of gendered victimization and feminist development in a Swedish peer support organization for people with experiences of criminalization and substance abuse. *Front. Psychiatry* 13:937228. doi: 10.3389/fpsyt.2022.937228

Me too! A case study of gendered victimization and feminist development in a Swedish peer support organization for people with experiences of criminalization and substance abuse

Emy Bäcklin[1,2]*

[1]Department of Criminology, Stockholm University, Stockholm, Sweden, [2]Department of Social Work and Criminology, University of Gävle, Gävle, Sweden

Even if peer support is commonly defined as horizontal in contrast to the more hierarchical relationship between client and professional, peer support is not free from power dynamics. This article considers feminist organizing in the context of peer support for people with experiences of criminalization and substance abuse and addresses questions of (un)equal peer support, sexual victimization, (re)integration, and organizational change in the #MeToo era. Drawing on qualitative interviews with support organization representatives and discussion material from a study circle and a men's group, this article analyses one organization's framing of, and responses to, allegations of sexual victimization of female members, and their ongoing work toward increased equality. The study shows that a number of measures have been taken in the organization in order to give voice to women whose lives are affected by crime, imprisonment, violence, and drug abuse. Interview participants put strong emphasis on the need to counteract what is described as a "macho culture" embedded in the peer support organization (PESO), which is seen as repeating structures of masculinity and power from the previous criminal lifestyle as well as reproducing specific gendered vulnerabilities. The organization's patriarchal structure is understood as connected to a culture of

silence that has allowed for sexism and marginalization of female members to continue. The women's lived experiences of trauma within peer support practices and their struggles to redefine the foundations of their organization emphasizes the lived gendered emotionality of peer support, and uncovers how power structures can be challenged by putting the gendered lived experiences of women with a history of criminalization and substance abuse in the center of ex-offender peer support.

KEYWORDS

feminism, #MeToo, peer support, reintegration, substance abuse

Peer support and desistance: A feminist approach

The idea that individuals who have overcome struggles help others with similar challenges dates back a long time. In the literature helpers are referred to as wounded healers (1–4), professional ex-s (5, 6), peer mentors (7), experts by experience (8), and credible messengers (9). The practice of peer support can be informal (for example among friends) or formal/intentional within existing services where people with lived experiences are trained and employed. It can also take place in self-help-oriented groups or PESOs [see (10)]. Peer support and the possibility among persons with lived experiences of incarceration, criminalization, and substance abuse to act as wounded healers has been identified as a practical implication of desistance theory, which in essence is based on the simple idea that people can, and do, change (11, 12). Wounded healers personify the success stories that desistance theory is built upon (12) and their lived experiences often mean that they are perceived as trustworthy (9, 13, 14). Wounded healing has further been highlighted as an effective strategy for scaling up preventive and restorative approaches tackling substance abuse and crime (15, 16). While restorative justice is a normative theory that suggests that harms should be repaired by the harm-doer by means of "giving back," desistance theory makes the empirical claim that such generative actions support desistance (11, 17, 18). Nugent and Schinkel (19) argue that desistance, in order to be maintained long-term, needs to be supported in three different spheres: the outside world, the world within, and the world of relations to others. They introduce the concepts of act-desistance (non-offending), identity desistance (internalization of an identity as non-offender), and relational desistance (change recognized by others). These spheres are linked to different forms of pains: pain of isolation when trying to achieve act-desistance and pain of goal failure when struggling to form a new identity or experiencing a lack of relational desistance. The importance of being recognized by others as someone who has changed and to be able to develop a sense of belonging to a community is acknowledged in the practice of peer support, where relational and structural aspects of desistance are central. Envisioning the future of desistance research, Maruna (12) highlights the central role of lived experience and argues that desistance should be reframed as a social movement "as that concept moves from the Ivory Tower to the professional world of probation and prisons, back to the communities where desistance takes place" [p. 11; see also (20)]. Indeed, the expression "nothing about us without us" has been key to various social justice movements (21) and is also evident in the field of convict criminology (22), where lived experiences is moved from margins to center by formerly incarcerated academics (12).[1] Peer support has been described as a political act that builds empowerment by telling and listening to each other's stories (23). In the spaces created by activist and peer support initiatives people can use their experiential knowledge to advocate for progressive change (23). Furthermore, peer support and peer groups have been referred to as possible safe spaces[2] for those stigmatized through criminalization and/or substance abuse (24). Nevertheless, even though studies show that peer support is helpful for the helper (2, 25–27), the potential risks or inefficacy of peer support is less explored (28). In the field of mental health, a systematic review and meta-analysis of randomized controlled trials of peer support for people with severe mental illness by Lloyd-Evans et al. (29) found little evidence of the effectiveness of peer support for this particular target group. Other studies indicate that peer support is often most successful "if both parties have other things in common such as cultural background, religion, age, gender and personal values" [(30), s 4; see also (31, 32)].

Peer support is often thought of as horizontal, in contrast to the supposedly more hierarchical relationship between client and professional (7). The sparse research on peer support and

1 Convict Criminology have been accused of excluding marginalized groups such as women, ethnic minorities and LGBTQs (90). Representatives acknowledge that white men are overrepresented in the field (22), but emphasize that multiply marginalized individuals may have good reason for not coming out as ex-convicts, and that the

mentoring in the criminal justice context has generally not dealt with power dynamics in the peer mentor setting, and Buck (7) points out that "when peer mentoring is framed as a relationship free of authority, one of the major power dynamics which is veiled is gender" (p. 215). Not only is peer mentoring a gendered practice where regulatory gender dynamics are negotiated (7), but peer mentoring spaces such as PESOs are arguably also sexualized spaces in which women with experiences of criminalization and substance abuse may feel less safe and supported, or even become exposed to further victimization (14). Feminist criminology has long since argued that "[g]ender blindness is not a trivial oversight; it carries social and political significance" [(33), p. 98]. Feminist criminologists have shown the extent to which gender matters in the lives of women with experiences of criminalization and substance abuse, not least in relation to the high exposure to violence and sexual victimization (34). Desistance research centering the lived experience of female offenders has further revealed how lingering consequences of prior victimization from violence may restrict women's routes out of crime (35, 36). Gender blindness thus risks obscuring the various ways in which structural inequalities affect women's lived experiences of criminalization and substance abuse, as well as their processes of desistance.

#MeToo and women with experiences of criminalization and substance abuse

One of the goals of the feminist movement has been to "rewrite the scripts that trigger shame" [(37), p. 42] by challenging stigmatizing perceptions of sexual victimization. As a "shame management process," Maruna and Pali [(37), p. 42] claim that #MeToo, rather successfully, have turned the tables on victim shaming and blaming, and redirected it onto offenders and the society and institutions that have failed to adequately acknowledge and deal with sexual violence and harassment. A large field of research has developed that sheds light on the global development of the #MeToo-movement (38–51). This emerging field is diverse and includes analyses of #MeToo-appeals (52), how managers and management teams have dealt with intra-organizational accusations of sexual harassment (53), effects of #MeToo on attitudes toward sexual assault (54), on reporting workplace sexual harassment (55), and effects in specific work sectors (56).

#MeToo has been described as a movement "concerning sexual harassment at work" [(57), p. 581]. Nevertheless, the limits of the movement are not clearly defined and there has been discussions as to whether it should include non workplace-related victimization (58). Moreover, certain stigmatized groups, such as sex workers and victims of prison rape have expressed doubts about their experiences are welcomed in the #MeToo narrative (58). Questions of the scope of the #MeToo-movement is relevant in relation to women with experiences of substance abuse and criminalization, whom as a group are often marginalized from the mainstream labor market, highly exposed to sexualized violence and abuse (34, 35, 59–62) and suffer from poorer health and living conditions in general (63–66). Moreover, the consequences of the failure to live up to idealized notions of the victim has been discussed in relation to drug using women subjected to partner violence. These women's drug use is often seen as causing the violence (67). Women who engage in criminal behavior or who use drugs risk being treated as doubly deviant for breaking the law as well as the conventional norms of femininity (36, 68, 69).

In Sweden, the #MeToo-movement had a wide impact. The number of hashtags was, relative to the size of Sweden's population, highest in the world (45). Between 2017 and 2018, 76 petitions were published in Swedish media (41). Most of the petitions came from different lines of businesses and industries, but several were initiated by groups of (mainly) women not connected to a specific industry sector. Out of the 76 petitions, two were initiated by people with experiences of drug use, sex for compensation and/or criminalization: #withoutsafetynet (#utanskyddsnät) and #notyourwhore (#intedinhora). #Withoutasafetynet's petition highlighted the fact that women[3] with experiences of drug use, sex for compensation and/or criminality are rarely treated or viewed as "fellow humans," seldom included in the imagined sisterhood of the women's movement, and not sufficiently acknowledged and protected by the welfare state. The initiators of #notyourwhore[4] defined themselves as joined not by industry, but by their shared vulnerability. Their petition, like #withoutasafetynet's, made visible the lack of legal rights that characterizes the lives of people with experiences of drug use, sex for compensation and/or criminalization.

The present study

This article will consider the feminist organizing that has been taking place in KRIS,[5] a Swedish PESO for people with

critique reveals a lack of insight into the effects of intersecting stigmas (91).

2 Safe spaces are commonly discussed and practiced in feminist, queer, and civil rights movements as spaces where marginalized groups are shielded from violence and harassment (92).

3 #Withoutsafetynet started as a #MeToo-petition in 2017 and became a non-profit organization in 2018. The organization also includes transgender people.

4 #Notyourwhore likewise started as a #MeToo-petition in 2017 and transformed into a non-profit organization in 2018. The organization's target groups are women, non-binary, and transgender people.

5 Acronym for Criminals' Return Into Society (in Swedish: Kriminellas Revansch I Samhället).

experiences of criminalization and substance abuse, in the context of #MeToo and in the aftermath of internal accusations of sexual harassment in KRIS. By exploring the organization's framing of the problem, the responses to victimization of female members, and their ongoing work toward increased equality, the study uses KRIS as a case to address questions of (un)equal peer support and feminist organizing in the context of ex-offender (re)integration.

Methods

Context of the study: The KRIS organization

Founded in 1997 by a group of men with a history of incarceration and substance abuse, KRIS is the first and most well-known non-profit PESO for people with experiences of criminalization and substance abuse in Sweden. One of the core activities of the organization is "muckhämtning," which means that peers pick up prisoners upon release and drive them to a KRIS premises where they have a release-celebration [cf. (11, 70) on re-entry rituals]. Above this, KRIS offers a range of different support services, which differs somewhat between the local associations depending on human and financial resources. At the time of writing this article, KRIS have local associations in eleven Swedish cities[6] and youth associations (target group 13–25 y/o) in eight[7]. These numbers have fluctuated over the years with several local associations having shut down, and new ones opened.

KRIS frequently comment on criminal policy related issues in Swedish media and participate in different social and political events like Almedalen Week.[8] Due to KRIS' high visibility as an organization for liminal groups (71) of people with criminal records and previous addictions, they attract publicity around their projects, activities, and funding. Recently Swedish Television reported that The Swedish Inheritance Fund demands a refund of almost SEK 1MM after finding deficiencies in the financial accounts of KRIS national association (72). This further led to the Swedish Prison and Probation Service denying KRIS state funding for targeted visiting activities and release support in 2021.[9]

An incident that is of relevance in this article is the allegations of sexual harassment of female KRIS members that were directed at the then president of KRIS in 2019 (73). In KRIS magazine *Vägen Ut*, this event and its aftermath are described as something of a turning-point for KRIS as an organization, where a fifth maxim: *Equality*, was added in 2021 [(74), issue 3]. In recent years several projects have started that aim to raise awareness about violence and sexism, work against shame and stigma, and to increase gender equality within the organization.

The current study draws on five semi-structured interviews with seven employed peer mentors working in KRIS. The study also draws on study material from KRIS' study circle: *The meaning of violence* and discussion questions used in KRIS Stockholm's weekly men's group (see **Table 1**). This study material is used to gain insight on how KRIS implement the equality maxim in their peer support practices.

In addition to the interviews and study material, I have followed KRIS development through their membership magazine: *Vägen Ut*, which has been distributed quarterly since 2002. Moreover, I have followed KRIS' social media channels for several years, not least during the period of internal conflicts 2019 surrounding the allegations of sexual harassment against the then president of KRIS (75). I also participated in a seminar on sexism and macho culture held by activist, journalist, and writer Atilla Yoldas, hosted by KRIS Stockholm in February 2021. Above that, I have listened to KRIS' podcast *The faces of violence* (Våldets ansikten). Even though these sources do not make up explicit empirical material in this study, they formed the rationale for doing the study and influenced the interview questions. Having followed KRIS for many years was also a resource during the interviews in terms of building trust with the interviewees.

Procedure

The five local KRIS associations that have started one or more gender equality related projects were contacted via their Facebook pages and/or email addresses with an information sheet and consent form for the study. I gave my contact information and asked people that would be willing to be interviewed to contact me. I also contacted specific individuals that I knew were involved in equality projects in KRIS. Through one of them I was referred to several others involved, four of which were subsequently interviewed. After giving informed consent, participants from three local associations were interviewed in person at their local association (n = 2) or over phone (n = 5). In one of the interviews three interviewees participated. This interview differed from the individual interviews, involving discussions and interactions between the participants. Having worked together for several years, they knew each other well and requested to be interviewed together. They had experiences of working in different local KRIS associations and with various assignments in the organization, which suited the purpose of discussing organizational developments.

6 The organization has also been active in Finland since 2003 (www.kris.a.se; www.kris.fi).

7 Young KRIS started 2006 and target young people between the ages of 13 and 25 (www.ungakris.se).

8 An annual political festival in Gotland, Sweden.

9 In 2022 KRIS was granted funding for making prison visits in Stockholm and Gävle (https://www.kriminalvarden.se/om-kriminalvarden/samverkan-och-samarbete/statsbidrag-ansok/organisationer-som-fatt-bidrag/).

TABLE 1 KRIS projects.

The faces of violence[1]	The project started because of increased isolation of predominately women and children due to the corona pandemic but takes a broader approach in discussing gender-based violence. The project includes a podcast.
The meaning of violence[2]	A study circle for both male and female KRIS members. The study circle is made up of 17 sessions based on Isdal's book (88) with the same name. The sessions focus on different types of violence such as physical, psychological, material, sexual, economic, and latent violence. The participants read extracts from Isdal's book before each session, during which they discuss different themes based on between three and six predetermined questions.
Men's group	A weekly men-only group where the participants discuss questions related to masculinity, sexism, violence, victimization, and family. Offered in the local association KRIS Stockholm.
Women's groups	Weekly women-only groups where participants are invited to discuss themes including shame and stigma, boundaries, victimization, and violence. Offered in several local KRIS associations.

[1]In Swedish: *Våldets ansikten*.
[2]In Swedish: *Meningen med våld*.

Conducting qualitative interviews over phone is often considered inferior to face-to-face interviews, although there is no evidence that phone interview data would be of less quality (76). Some studies suggests that phone interviews have the advantage of being more flexible in terms of geography and time scheduling, and that phone interviews can feel less intrusive for the interviewees (76, 77), the latter indicating that this method may even be preferable when conducting interviews on sensitive topics (78). The alternative to conduct the interviews over phone was chosen by five of the interviewees, mainly because it allowed for greater flexibility in scheduling the interview at a time that suited them. The interviews lasted between 35 min and 1 h 45 min (average duration = 47 min). Each interview was recorded in its entirety and transcribed verbatim. Participants' personal details were removed from the transcripts to preserve anonymity and the recordings were deleted once the interviews were transcribed and checked. All participants received a copy of the transcripts after the interviews along with the information that the recording had been deleted.

Participants

Seven peer supporters and KRIS employees (five women, two men) in three local associations that work actively with different gender equality projects were interviewed for this study. Four participants have eight or more years of experience in KRIS, three have between 4 and 6 years of experience. All participants have lived experience of incarceration, criminalization, and substance abuse. The mean age of the participants is 46.7 years. To increase anonymity, their individual age or local association will not be disclosed.

Data analysis

The interview data were analyzed thematically with the attempt to describe participants' perceptions and experiences of the organizational changes and developments regarding equality during their employment/commitment in KRIS. The coding was made using the NVivo software. For this study, the interviewees were explicitly asked to account for organizational developments in relation to internal conflicts and the #Metoo-movement. I view the interview data as organizational narratives, defined by Vaara et al. [(79), p. 496] as "temporal, discursive constructions that provide a means for individual, social and organizational sensemaking and sensegiving." Narratives of organizational change shape understandings of things that have happened in the past, as well as trajectories of the future (80, 81). The interviews touched upon several themes that related to (in)equality and organizational development, for example specific events/conflicts related to gender inequalities and victimization, descriptions of organizational changes, then versus now-narratives, equality work/projects, masculinity and power, and strategies for change. I themed the interview data based on how the problem with inequality in the organization was framed, how the organizational changes were explained, and what solutions were suggested. Change almost always involves narrative representation because of its immanent temporal development (79). The participants often talked about developments in KRIS in terms of "then versus now." This narrative involved the phrase "flipping the triangle," which was used to describe how the organization has gone from being run top-down to bottoms-up. I interpreted this as both an organizing narrative (in that changes for equality was centered around it), and a narrative that shaped the organization (KRIS was dysfunctional *before* but is *now* more democratic and well-functioning).

In the study materials I specifically looked for practical examples of the *how's* of the organizations' equality work as a supplement to the interview material.

Findings

Framing the problem

On one level, the interview narratives tie the problems and harms regarding inequality and sexism within KRIS to certain

individuals. IP3 (F) says that the core values of KRIS (honesty, abstinence, solidarity, and comradeship[10]) really appealed to her when she first came to the organization, but that "the primary goal of KRIS was being lost because of specific individuals" who made KRIS an unsafe and dysfunctional space. These individuals are described as having caused harm to fellow members in the organization as well as to the organization itself. Central in this narrative is the image of harm as a "sickness" that affected the whole body of the organization. IP1 (F) similarly says that:

> Many local associations have been ruled from the top. Some have lined their pockets in various ways and all of that. And maybe not everyone would dare to say, "this is what it's like in my local association," because then you'd get shit for it. You see what I mean? So, it's good that we've cleaned out this sickness (IP1, F).

Below, the narrative of IP7 (M) interestingly problematizes the consequences of certain lived experiences of "the criminal life" on how the organization has been governed. Framing the "criminal attitude" as permeated by "power, control, and domination techniques" IP7 paints a picture of an organization where members have been afraid to speak up for fear of retaliation:

> The board of RIKSKRIS[11] has a responsibility and the chairman of RIKSKRIS only has one task, and that is to lead the board. It's the board that makes decisions. And I actually think that throughout the years that KRIS has existed, people haven't understood this concept. And that's what's frightening, because you've kept everything that you had with you when you came to KRIS, you see? From like the criminal life . . . and of course it was that attitude and that history that was there in KRIS that we like needed to bring up to the surface and start to change. So, it was like that those who'd been there the whole way just had to take a good look at themselves and see that, shit, yes . . . we've sat here like puppets. We haven't dared to assert ourselves. We haven't dared to speak up when we think that things have been done in the wrong way, because there has always been a leader or a chairman who is bloody loud and like, a lot of power, control, and domination techniques. And then it's like . . . yes, but there's been a sickness at KRIS for a very long time. (IP7, M)

Group secrecy and silence has been described as effective ways of legitimizing and maintaining abusive behaviors (82), something that is also highlighted in the quote above. On a structural and organizational level, the participants describe KRIS as a historically patriarchal organization with "the same hard jargon as it was out there [in the criminal lifestyle]" (IP2, F). IP7 (M) says:

> There's no need to make any pretense about the fact that KRIS has been a male-dominated association and organization ever since it started. You only have to look at the composition of the boards and the chairmen at the local level. So, women haven't wanted to come to KRIS. And then you must ask: why is that? And it's precisely this macho culture that's existed, the biggest, strongest, loudest – that's the one who decides things. And then I'd have to say that you haven't changed the criminal mindset. You may have moved to a different playground, but you've kept all the criminal attributes. (IP7, M)

IP4 (F) says that when she first came to KRIS, the whole organization was male dominated: "The board, all leading positions, were held by men. Many of us women didn't even get a chance to make our voices heard." Peer support has been described as a liminal occupation (71), the peer supporters operating from the position of being both inside and outside the experience of the criminal justice system. IP4's statement suggests that female peer supporters occupy a doubly liminal position, being viewed as outsiders within the PESO where their experiences of the criminal justice system have not been equally valued. IP4 continues:

> I think that many have been seriously manipulated, I mean there was a hierarchy that was like set in stone. Among the men, I mean. And even if there were men who were not involved in this, I think the majority have been seriously manipulated by like an attitude. That's what was difficult, which meant that like, yes . . . something was needed to break it. I mean, what was needed was for the chairman of the association to leave, and for people to like really put their foot down. And it's not just about this chairman, but rather it's about standing up for, like standing up against a behavior and a prison jargon that's been like very firmly established in KRIS. (IP4, F)

In the interviews, this jargon is described as "macho," "sexist" and "vulgar." According to the participants, this kind of jargon has particularly severe consequences for women. IP7 (M) says that "we know from our own experience that women involved in substance abuse are exposed to a great deal," and IP1 (F) emphasize that for women, the experiences of sexual abuse and violence is often intimately connected to their substance use, "that have been like a kind of salvation." Along the similar lines, IP3 (F) say:

10 The fifth maxim "Equality" was added in 2021.

11 KRIS' national organization.

> It shouldn't be okay that like men who've been a long time [in the organization] go and grab the arses of girls who are new. Everyone should feel safe here. Whatever KRIS-organization you go to, I mean women in our target group have lived with extreme vulnerability, and presumably that's the main objective: to come to a KRIS association wherever you might be, and that you will feel safe there. (IP3, F).

The perception that the support organization should be a safe space is repeated in the interviews. Against the backdrop of the particular vulnerability that is described here, being subjected to a peer support environment where patterns of sexualization and abuse continues, risk retraumatizing women and even affect their efforts to uphold desistance [cf. (35)]. IP3 (F) touches upon the personal consequences that being in this environment had for her:

> When you come from this world [the criminal lifestyle] where I come from, this [sexism/sexualized talk] is normal. And like, you're so used to it that you just kind of just let it happen. And when you've lived like this, with crime and substance abuse, and it's something that carries on. . . I saw this as something common to many of the men in our organization, the leaders and among others in senior positions in KRIS, leading figures and so on, this like sexism and that. But then I have to say that you get colored by this yourself too. So, I've also had periods when I've been very unwell. I mean, I became ill after a few years of this; I ended up in a process of relapse. I'm not blaming it [the relapse] on the people at KRIS, absolutely not; I have a responsibility myself of course. But I stopped taking care of myself, and I became very affected by this. (IP3, F)

The narrative implies that the sexist environment had a strong negative impact on her sense of self-worth. She says she felt disheartened, assuming that "this must be what it is like everywhere then." During her period of relapse into drugs, she says she "lost it completely," ended up in a very destructive relationship and had to fight hard to reconnect with herself and to "find my way back to this good person that I am, and my own values and all that."

Taken together, the framing of the problem with sexism and sexual harassment in KRIS that these narratives present has several similarities with the different framings of the problem that were constructed in Swedish #MeToo petitions [see (41)]. Firstly, the problem in KRIS is understood as connected to male-dominance and macho culture, where certain bullying behaviors and sexist jargon are seen as inherent. Secondly, sexism and inequality are constructed as residues of power structures from the criminal lifestyle, in which women are described as particularly vulnerable. Thirdly, the KRIS representatives mention collective behaviors that they believe have enabled the problem to continue, such as a culture of silence and processes of normalization. Similar frameworks, which situates the problem as systematic and structural, was evident in the Swedish #MeToo-movement (41). However, the peer supporters also make connections to specific aspects of their lived experiences of criminality, drug abuse, and (re)integration. This includes references to a "criminal mindset" that some men are still alleged to possess, and a particular vulnerability with regards to violence in their female target group. These gendered structures are seen as shaping and reproducing victimization in the space of peer support.

Framing change and changing practice

The following section will explore the representatives' framing of change within the organization, along with an analysis of practical changes and changed practice. Several participants mention that that there have been driving spirits in the organization before who have fought to improve the conditions for women, but that they have met strong internal resistance from men "at the top." IP6 (M), for example, says that "the resistance has been bubbling under the surface. We have wanted to let women in, but it's the ones at the top who have not wanted to have the women involved in that way." Although the framing of sexual harassment within the organization was similar to models of explanations that were present in the #MeToo discourse (as shown above), most participants did not spontaneously link the organizational changes in KRIS to the #MeToo-movement. However, when asked, they made connections between this broader societal event and the course of development in KRIS, as the example below shows:

> **IP3 (F)**: When I came back to KRIS after my relapse treatment, we started working extremely hard to bring about change. And I and [colleague] became sort of spokespersons, like, "No, but now this has to change!" So, we started talking about everything that had happened, from the time I came to KRIS and this manager [name], who said that "she could do with a good licking out," like totally sick stuff . . . that we ourselves had normalized. But I mean, things started to change years before that time, but this was like when it *really* started to change.

> **INTERVIEWER:** So, what was different this time then?

> **IP3:** There really needed to be an uproar. That's what was needed, and more strong women could like bear witness to this.

> **INTERVIEWER:** And was there a link to #MeToo? There was #withoutasafetynet and like other campaigns that happened at around the same time.

> **IP3**: Yes, I mean, I think there is, certainly, because of course women in general have like started to talk more. And then it's normal that it happens in KRIS too. I was also involved in #withouthasafetynet from the beginning, so I probably took a lot of that with me as well, to KRIS. We also had a lot of stories sent to us during this crisis with [individual in a senior position]. There were more women who like came forward who had been victimized by him.

Several others also link changes in KRIS to #MeToo as an overarching discourse that led women to start sharing their stories. IP1 (F) states that "[after #MeToo] then people dared . . . people dared to say this was what it was like; you know," but women's improved conditions in KRIS are also understood as dependent on changes that took place at the highest level of the organization, as evident in the conversation between IP4 and IP5 below:

> **IP4**: I definitely think that #MeToo played a part [in the changes in KRIS]. But it wasn't like we women decided to like "*now* we're going to rise up." It really just happened, you know.

> **IP5**: The women in KRIS maybe like found the courage to lift this problem, that someone started talking about it because we found strength in this #MeToo-talk. So, it was a bit like "have you also been exposed to this?" "Yes, we have," and then it got going quite quickly, and then you have to do something about it. Previously, a lid has just been kept on it all.

> **IP4**: Yes, but I think it was significant that the change also took place in RIKSKRIS, because when it changed up there, we [women] were suddenly allowed in and people started listening.

A central theme in the narratives of change is the sexual harassment accusations against the former president of KRIS as *a turning point for the organization*, not only in terms of gender equality but in terms of democratic governance. This narrative is also the official organizational narrative that was published in KRIS magazine Vägen Ut [(74), issue 3]. The democratic decision to add *Equality* as a fifth organizational maxim [alongside *Sobriety, Honesty, Comradeship, Solidarity*] in 2021 was aimed at the core of the organizational identity and symbolizes the development toward implementing a feminist analysis that rejects the idea that gender equality would follow naturally upon an ideology of comradeship and solidarity. IP4 (F) says that "there was actually a group of men [in KRIS] who thought, no, but come on, we've got these maxims and that already includes gender equality!" The same argument against introducing equality as a fifth maxim is recalled by IP3 (F):

> Before, the discussions were a bit, "But why should we have a maxim on gender equality? That should be covered by *Solidarity* and *Comradeship*." And so we women said, "But it obviously isn't." And if we have a maxim to point to, like gender equality, then that's that! If you don't abide by it, then you can't be part of KRIS. Then you can get excluded, and then there are consequences for not abiding by it. I mean we have consequences if you don't abide by staying drug-free or behaving honestly. I mean, I lost my job and like, you know. And we think that gender equality is just as important. And to get that kind of resonance in it, we needed to make it a maxim in its own right. (IP3, F)

These discussions revealed the organization's marginalization of women's lived experiences both outside and inside of the organization and made the limits of comradeship and solidarity visible (like in many other social movements). In the wake of the accusations of sexual harassment, the chairman of KRIS was excluded from the organization. This event can be connected the to the raised concern that "[e]ven as a house cleaning is necessary, many worry that #MeToo's victories will be short-lived in the absence of deeper structural and cultural changes" [(58), p. 54]. The question then is whether KRIS have done more than a house cleaning that could render more sustainable organizational changes. In the interviews, participants describe how the organization itself has had to undergo changes, not only regarding the male dominance and idealizations of hyper masculinity, but in terms of increasing democratic management. For example, IP7 (M) says that:

> All members should be able to come and there should be no hierarchical order or any feeling of 'oh, he's the one in charge'. It's not one individual who decides things, there's a board, there's an associational structure that has a democratic foundation."

The question of responsibility is addressed in the interviews (and in the magazine), along with accounts of how KRIS have handled the problems and harms, and how they work to prevent such harms in the future. One change that has been made with regards to strengthening the democratic foundation of the organization is the introduction of the national two-day KRIS conference: *the KRIS-days*,[12] hosted quarterly. Some

12 The first KRIS-days conference was held in September 2020.

local associations take part in the weekly #Kvinnostrejk, a women's strike inspired by similar strikes in other countries with the aim to end systematic discrimination and oppression of women (83). IP1 (F) emphasizes the fact that "the guys [from KRIS] are also there [at the strike]. We think that that's important, because this is a man's issue to a great extent and men usually listen more to other men." At the same time, she says the women sometimes struggle to get men with experiences of criminalization and substance abuse to really understand women's experiences:

> **IP1 (F)**: The men just don't have the same experience as we women of what it's like in the active [criminal lifestyle]. And that makes it difficult to understand some aspects. I'm not saying that they must understand it straight away, but it's difficult for them to relate to some of the things that you've been subjected to. A lot of them think like, "Yes, but what are you talking about, why didn't you leave him?" It's a bit of an uphill struggle, you know. [. . .] If you're a woman who's been exposed to violence, then getting hit left and right is normal, so you have to start with this, as I say, broad understanding. This is what it's been like, can you all understand that? And then you have to refine it to, "Yes, can you understand what it's like when you're trying to become part of a KRIS association?"

One of the changes of practice within KRIS that aim to increase knowledge and identification is the introduction of the *study circle* "The meaning of violence" where the members meet weekly to discuss violence related themes. For example, the theme of sexual violence includes questions like: *What is sexual violence? Have I been subjected to any kind of sexual violence? Have I subjected others to any type of sexual violence? What are my thoughts on sexism and macho culture? How can I as an individual take responsibility for a more equal society and counteract sexism and sexual violence? How can we as an organization take our responsibility to counter sexism and sexual violence?* The discussion themes in the study circle are interesting from a strengths-based perspective and build upon both generative, feminist, and restorative approaches. The questions concern lived experiences of being both victim and perpetrator of sexual violence, and highlights members' own values and attitudes. The questions also take a wider perspective, challenging the participants to imagine themselves contributing to a more equal society, as well as taking part in building and developing a PESO with a feminist mission.

> **IP1 (F)**: We have a fantastic study circle where we go through all the forms of violence that exist. What *is* violence? And I think I know a lot from my own life, but I've learned an awful lot. [. . .] You get to learn about material violence, for example, that a lot of people think isn't such a big deal. I haven't lived in a single apartment where there hasn't been a hole in every wardrobe door! Or like destroying somebody's things. "Yes, but I didn't hit you, I just destroyed your clothes" . . . or your mobile phone or whatever it might be. And this latent violence, that people don't talk about very much. What it can be like in families where it just sits there like a dark cloud over. . . like when is dad going to smash his fist down on the table? You hardly dare to breathe and can hardly eat. [. . .] We also talk a lot about sexual abuse, which is a very taboo subject. We women are a bit more in the forefront and dare to talk about it. But you know that many men who've spent time in prison have been exposed. So, it was really good at the KRIS-days, when there was a guy who opened up about it. And how we then need to like . . . because it's not *your* shame that you have to carry! (IP1, F)

The interviews as well as the study material show that KRIS also extend victimization to include men as victims of patriarchal norms and violence, but also as ultimately responsible for ending violence and changing norms.

> **IP3 (F)**: With women, we work with what they've been subjected to, a lot of sexual violence and that kind of thing. With the men, we work of course with what they've subjected others to. And then you have to strike a balance, so that the women and the men can cope with being here together. And that the men can like talk about, were they allowed to be sad when they were children? And what does it mean being a man in like a criminal environment . . . so that's probably the big differences, that among the men we have quite a lot of perpetrators in one way or another. I'm not saying there's a load of rapists, but in one way or another [they are perpetrators]. And a lot of guys that come here don't understand either. . . but "oh, is that violence? Many men don't understand that they've subjected women or girls to violence, so we like work to raise awareness about that, and to start talking about it. Because we think it's the men who can have a major influence. Influencing and teaching other men. So that's a big responsibility, that we start with them.

The feminist development and the analysis of masculinity and male responsibility affect KRIS' strengths-based practices in several ways; new projects have formed with the intention to support and educate male peer mentors that can pay the message forward [cf. (84)]. Raising male awareness of violence, sexism, victimization, and responsibility is one of the main themes that are addressed in KRIS men's groups where different questions are discussed, including: *what is important to me in an intimate relationship? Was I allowed to be sad when I was a child? Am I complicit in the macho culture? How do I react if a friend makes a sexist joke? In what way has my upbringing influenced my values around gender norms?* In the men's group, the discussion

questions focus on lived experiences that go beyond direct lived experiences of substance abuse and criminality (such as sexist jargon and suppressed emotions), but which, from a feminist perspective are clearly linked to masculinity, power and ultimately violence.

Discussion and conclusion

This article analyzed feminist organizing in a Swedish PESO for people with experiences of criminalization and substance abuse in the aftermath of #MeToo. The study shows that there are several parallels between how the issue of sexual harassment was framed by KRIS and the way this issue was framed by the #MeToo petitions that emanated from other Swedish workplaces and industries. For example, the outline of the problem as a democratic issue rather than a women's issue and a question of providing a safe place for all members (i.e., a work environment issue), is aligned with the problem definition of the broader #MeToo-movement in Sweden (41, 56). The interviews also indicate a raising of awareness among women in KRIS that came from sharing experiences of sexual harassment and realizing they were not alone. Similar to the effects that #MeToo had in terms of revealing organizational problems such as male cultural power, ostracism, and different kinds of misconduct (53, 55), the internal accusations of sexual harassment in KRIS uncovered deeper issues of power conflicts and a culture of silence.

A number of measures have been taken in the organization in order to give voice to women whose livelihoods are affected by crime, imprisonment, violence, and drug abuse. These measures include a campaign for sexual consent, a podcast about violence toward women and children, and workshops that critically discuss masculinity and violence. The study indicates that the #metoo-movement facilitated changes that were already starting to take place within the KRIS organization, and that these broader societal events helped mobilize women within KRIS and further legitimized their demands to deal with the organization's macho culture. The framing of sexism and macho culture as part of a "criminal mindset" challenge micro- and meso-level relational desistance in the peer support context as it questions whether a person upholding these attitudes have really changed. While this may put individuals in a liminal state of being neither offender nor recognized as someone who have "made good" (19), it also expands KRIS' definition of what it means to desist from crime and ultimately changes how the organization works to support identity desistance. By extending their strengths-based peer support activities to also include the collective challenging of masculinity norms as well as arranging men's groups that involve exploring vulnerability, emotional abuse, and responsibility, KRIS is imagining what feminist, restorative (re)integration could look like. The study thus uncovers how power structures can be challenged by putting the gendered lived experiences of women with a history of criminalization and substance abuse in the center of ex-offender peer support.

If the #MeToo-movement has taught us one thing, it is that there is absolutely nothing unique with an organization or workplace environment where women are sexually harassed. In that regard, what happened in KRIS was just business as usual. What sets KRIS and similar PESOs apart from most other organizations or workplaces is the stigma that is attached to them as organizations run by people with criminal records and previous addictions. Researchers in Social Work as well as in Criminology have pointed to the "liminality inherent in peer support" [(71), p. 188], where "little [is] needed to topple perceptions of 'progress/rehabilitation'" [(85), p. 10]. PESOs occupy an organizationally liminal position, always located in the focal eye of risk management. Actual or suspected misconducts such as in The Swedish Inheritance Fund incident (86) risk tarnishing the entire organization's reputation, leading to the loss of funding or canceled contracts with other criminal justice actors such as the Prison and Probation Service, which jeopardizes the organization's support services. The accusations of sexual harassment also gave the organization negative media attention and caused internal conflicts. Against the backdrop of liminality I suggest that this study's narratives framing of problems and solutions in KRIS can be thought of as "restorative storytelling that redefines an ethical conception" [(87), p. 10] of the organization, functioning as a shame management tool for resisting stigma attached to the harms committed by its liminal subjects.

The liminality of peer support is further complicated when considering the gendered power structures described by the interviewees in this study. Female peer supporters with lived experiences of criminalization and substance abuse occupy a doubly liminal position; not only are they both inside and outside the experience of the criminal justice system as peer workers [cf. (71)], but they are also in a state of being in-between sexual objects and peers, as outsiders within the PESO where their experiences of the criminal justice system have not been equally valued. As research shows that peer supporters run the risk of being retraumatized while using their lived experience in the practice of helping others (7, 85), this study's uncovering of women's lived experiences of trauma within peer support practices and their struggles to redefine the foundations of their organization adds to the understanding of lived gendered emotionality of peer support. To conclude, the focus on feminist organizing in peer support narratives and practice also says something about *belonging* in the sense of "*being a recipient of social goods* (that is, someone enjoying fair access to all the resources, rights and opportunities routinely afforded to other citizens)" [(20), p. 436]. There are clearly gendered barriers to belonging and to becoming a recipient of social goods, as the resistance to unequal support for desistance in this study shows.

Limitations

This study is based on the developments in one organization as told by a limited number of informants. Although the interviewees have long experience of working in KRIS and can be defined as representatives of the organization, there are probably other stories of the changes in KRIS that this study does not reach. Furthermore, since the organization's work for increased equality and raising awareness of destructive masculinity and violence is in its early stages, some of the narratives speak more of changed values than of practical changes. Additionally, the "new" organization is still in the making and its future is not clear. Whether or not KRIS manages to implement their new maxim in all the local associations, and what effect the organizational changes might have on membership numbers, reputation, funding, and collaborations with other criminal justice actors is a question for follow-up studies.

Data availability statement

The original dataset presented in this article are not readily available because they contain potentially identifying or sensitive personal information. Inquiries about the primary data can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the Swedish Ethical Review Authority (reference number 2021-05339-02). The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

The author confirms sole responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

Acknowledgments

The author would like to thank Carl Johan Karlson and the reviewers for critically reading and constructively commenting on previous drafts of this article.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

References

1. Jung CG. *Fundamental Questions of Psychotherapy. Collected Works*. Vol. 16. London: Routledge (1951).

2. LeBel TP. An examination of the impact of formerly incarcerated persons helping others. *J Offender Rehabil.* (2007) 46:1–24. doi: 10.1080/10509670802071485

3. Maruna S. *Making Good: How Ex-Convicts Reform and Rebuild Their Lives*. Washington, DC: American Psychological Association (2001). doi: 10.1037/10430-000

4. Maruna S, LeBel TP. Strengths-based restorative approaches to reentry: the evolution of creative restitution, reintegration and destigmatization. 1st ed. In: Ron'el N, Segev D editors. *Positive Criminology*. Milton Park: Routledge (2015). p. 65–84. doi: 10.4324/9781315796536-5

5. Brown JD. The professional ex-: alternative for exiting the deviant career. *Soc Q.* (1991) 32:219–30. doi: 10.1111/j.1533-8525.1991.tb00354.x

6. Brown JD. Professional socialization and identity transformation. The Case of the Professional Ex. *J Contemp Ethnogr.* (1991) 20:157–78. doi: 10.1177/089124191020002002

7. Buck G. *Peer Mentoring In Criminal Justice*. Milton Park: Routledge (2020). doi: 10.4324/9780429277337

8. Sandhu B. *The Value of Lived Experience in Social Change: The Need for Leadership and Organisational Development in the Social Sector*. Clore Social Leadership Foundation. (2017). Available online at: http://thelivedexperience.org/wp-content/uploads/2017/07/The-Lived-Experience-Baljeet-Sandhu-VLE-summary-web-ok-2.pdf

9. Lopez-Humphreys M, Teater B. Peer mentoring justice-involved youth: a training model to promote secondary desistance and restorative justice among mentors. *Int J Restor Justice.* (2018) 1:187–209. doi: 10.5553/IJRJ/258908912018001002002

10. Bradstreet S. Harnessing the 'lived experience': formalising peer support approaches to promote recovery. *Ment Health Rev J.* (2006) 11:33–7. doi: 10.1108/13619322200600019

11. Maruna S. Desistance and restorative justice: it's now or never. *Restor Justice.* (2016) 4:289–301. doi: 10.1080/20504721.2016.1243853

12. Maruna S. Desistance as a social movement. *Ir Probat J.* (2017) 14:5–20.

13. Buck G. "I wanted to feel the way they did": mimesis as a situational dynamic of peer mentoring by ex-offenders. *Deviant Behav.* (2017) 38:1027–41. doi: 10.1080/01639625.2016.1237829

14. Bäcklin E. Supporting masculinities: wounded healing and masculinity in peer support organizations for people with experiences of criminality and substance abuse. *Vict Offender.* (2021). 1–21. doi: 10.1080/15564886.2021.1974993 [Epub ahead of print].

15. Braithwaite J. Scaling up crime prevention and justice. *Crime Justice.* (2021) 50:247–99. doi: 10.1086/716093

16. Braithwaite J. Restorative justice and reintegrative shaming. In: Chouhy C, Cochran JC, Jonson CL editors. *Criminal Justice Theory: Explanation and Effects*. (Vol. 26), New York: Routledge (2020). p. 281–308. doi: 10.4324/9781003016762-12

17. Eglash A. Adults anonymous. A mutual help program for inmates and ex-inmates. *J Crim Law Criminol Police Sci.* (1958) 49:237. doi: 10.2307/1141392

18. McNeill F, Maruna S. Giving up and giving back: desistance, generativity and social work with offenders. In: McIvor G, Raynor P editors. *Developments in Social Work with Offenders*. London: Jessica Kingsley (2007). p. 224–339.

19. Nugent B, Schinkel M. The pains of desistance. *Criminol Crim Justice.* (2016) 16:568–84. doi: 10.1177/1748895816634812

20. Graham H, McNeill F. Desistance: envisioning futures. In: Carlen P, Ayres França L editors. *Alternative Criminologies*. London: Routledge (2017). p. 433–51. doi: 10.4324/9781315158662-26

21. Bakshi S. Peer support as a tool for community care: "nothing about us, without us". *Columbia Soc Work Rev.* (2021) 19:20–43. doi: 10.52214/cswr.v19i1.7602

22. Ross JI, Vianello FA, eds. *Convict Criminology for the Future.* (2021). New York, NY: Routledge.

23. Faulkner A, Basset T. A long and honourable history. *J Ment Health Train Educ Pract.* (2012) 7:53–9.

24. Victor G, Sightes E, Watson DP, Ray B, Bailey K, Robision L, et al. Designing and implementing an intervention for returning citizens living with substance use disorder: discovering the benefits of peer recovery coach involvement in pilot clinical trial decision-making. *J Offender Rehabil.* (2021) 60:138–58. doi: 10.1080/10509674.2020.1863301

25. Heidemann G, Cederbaum JA, Martinez S, LeBel TP. Wounded healers: how formerly incarcerated women help themselves by helping others. *Punishm Soc.* (2016) 18:3–26. doi: 10.1177/1462474515623101

26. LeBel TP, Richie M, Maruna S. Helping others as a response to reconcile a criminal past: the role of the wounded healer in prisoner reentry programs. *Crim Justice Behav.* (2015) 42:108–20. doi: 10.1177/0093854814550029

27. Maruna S, LeBel T. Strengths-based approaches to reentry: extra mileage toward reintegration and destigmatization. *Jpn J Soc Criminol.* (2009) 34:58–80.

28. Weaver B, McCulloch T. *Co-Producing Criminal Justice*. Glasgow: Scottish Centre for Crime and Justice Research (2012).

29. Lloyd-Evans B, Mayo-Wilson E, Harrison B, Istead H, Brown E, Pilling S, et al. A systematic review and meta-analysis of randomised controlled trials of peer support for people with severe mental illness. *BMC Psychiatry.* (2014) 14:39.

30. Repper J. *Peer Support Workers: Theory And Practice*. London: Centre for Mental Health (2013).

31. Faulkner A, Kalathil K. *The Freedom to Be, the Chance to Dream: Preserving User-Led Peer Support in Mental Health*. London: Together for Mental Wellbeing (2012).

32. Hansman CA. Diversity and power in mentoring relationships. In: Hansman CA editor. *Critical perspectives on mentoring: Trends and issues*. Columbus, OH: ERIC Clearinghouse on Adult, Career and Vocational Education (2002). p. 39–48.

33. Gelsthorpe L, Morris A. Feminism and criminology in Britain. *Br J Criminol.* (1988) 28:93–110. doi: 10.1093/oxfordjournals.bjc.a047731

34. Chesney-Lind M, Morash M. Transformative feminist criminology: a critical re-thinking of a discipline. *Crit Criminol.* (2013) 21:287–304. doi: 10.1007/s10612-013-9187-2

35. Gålnander R. Being willing but not able: echoes of intimate partner violence as a hindrance in women's desistance from crime. *J Dev Life Course Criminol.* (2019) 5:437–60. doi: 10.1007/s40865-019-00108-5

36. Osterman L. *Stories across Borders: How Female Ex-Offenders Make Sense of Their Journey through Crime and Criminal Justice in Sweden and England.* Ph.D. thesis. Guildford: University of Surrey (2016).

37. Maruna S, Pali B. From victim blaming to reintegrative shaming: the continuing relevance of Crime, shame and reintegration in the era of #MeToo. *Int J Restor Justice.* (2020) 3:38–44. doi: 10.5553/TIJRJ/258908912020003001005

38. Askanius T, Hartley JM. Framing gender justice: a comparative analysis of the media coverage of #metoo in Denmark and Sweden. *Nord Rev.* (2019) 40:19–36. doi: 10.2478/nor-2019-0022

39. Erickson K. *Framing Feminism: How U.S. and French Media Frame #MeToo and #BalanceTonPorc from a Feminist Perspective. WWU Honors Program Senior Projects*. Bellingham, WA: Western Washington University (2019). p. 119.

40. Fileborn B, Loney-Howes R. Introduction: Mapping the Emergence of #MeToo. In: Fileborn B, Loney-Howes R editors. *#MeToo and the Politics of Social Change*. New York, NY: Springer (2019). p. 1–18. doi: 10.1007/978-3-030-15213-0_1

41. Hansson K, Sveningsson M, Ganetz H, Sandgren M. Legitimising a feminist agenda: the #MeToo petitions in Sweden 2017–2018. *Nord J Media Stud.* (2020) 2:121–32. doi: 10.2478/njms-2020-0011

42. Hassan N, Mandal MK, Bhuiyan M, Moitra A, Ahmed SI. Nonparticipation of bangladeshi women in #MeToo movement. *Proceedings of the Tenth International Conference on Information and Communication Technologies and Development*. New York, NY: ACM (2019). p. 1–5. doi: 10.1145/3287098.3287125

43. Hasunuma L, Shin K. #MeToo in Japan and South Korea: #WeToo, #WithYou. *J Women Polit Policy.* (2019) 40:97–111. doi: 10.1080/1554477X.2019.1563416

44. Lin Z, Yang L. 'Me too!': individual empowerment of disabled women in the #MeToo movement in China. *Disabil Soc.* (2019) 34:842–7. doi: 10.1080/09687599.2019.1596608

45. Ljungquist S. Feminism and Anti-feminism in Sweden, in the Wake of #MeToo. In: Edling S, Macrine SL editors. *Transnational Feminist Politics, Education, and Social Justice: Post Democracy and Post Truth*. London: Bloomsbury Academic (2022). p. 123–40. doi: 10.5040/9781350174498.ch-7

46. Orgeret K. Profesjonsdilemmaer i den norske #MeToo-dekningen. *Norsk medietidsskrift.* (2019) 26:1–16. doi: 10.18261/ISSN.0805-9535-2019-03-03

47. Pollack E, Allern S, Kantola A, Ørsten M. The new normal: scandals as a standard feature of political life in Nordic countries. *Int J Commun.* (2018) 12:3087–108.

48. Sletteland A. Da #MeToo kom til Norge: et ufullendt normskifte mot seksuell trakassering. *Tidsskrift for kjønnsforskning.* (2018) 42:142–61. doi: 10.18261/issn.1891-1781-2018-03-02

49. Starkey JC, Koerber A, Sternadori M, Pitchford B. #MeToo goes global: media framing of silence breakers in four national settings. *J Commun Inq.* (2019) 43:437–61. doi: 10.1177/0196859919865254

50. Storøy Elnan T. *After #MeToo: How the Campaign Changed the Way Norwegian Journalists Write About Rape*. Oxford: University of Oxford (2019).

51. Zeng J. You Say #MeToo, I Say #MiTu: China's Online Campaigns Against Sexual Abuse. In: Fileborn B, Loney-Howes R editors. *#MeToo and the Politics of Social Change*. New York, NY: Springer International Publishing (2019). p. 71–83. doi: 10.1007/978-3-030-15213-0_5

52. Engdahl E, Ekbrand H, Nyman M. #Metoo: en kamp för socialt erkännande och rättvisa. *Sociol Forsk.* (2021) 58:199–216. doi: 10.37062/sf.58.22500

53. Hedin U-C, Lane L. The promise of the #MeToo movement for preventing and reporting sexual harassment. *SSRN Electron J.* (2020) 1–10. doi: 10.2139/ssrn.3523159

54. Szekeres H, Shuman E, Saguy T. Views of sexual assault following #MeToo: the role of gender and individual differences. *Pers Individ Differ.* (2020) 166:110203. doi: 10.1016/j.paid.2020.110203

55. Brown SEV, Battle JS. Ostracizing targets of workplace sexual harassment before and after the #MeToo movement. *Equal Divers Incl.* (2019) 39:53–67. doi: 10.1108/EDI-09-2018-0162

56. Ganetz H, Hansson K, Sveningsson M. *#MeToo, byggbranschen och de gröna näringarna*. Stockholms: Institutionen för etnologi, religionshistoria och genusvetenskap, Stockholms universitet (2020).

57. Riordan CA, Kowalski AM. From bread and roses to #MeToo: multiplicity, distance, and the changing dynamics of conflict in IR theory. *ILR Rev.* (2021) 74:580–606. doi: 10.1177/0019793920970868

58. Wexler L, Robbennolt JK, Murphy C. #MeToo, time's up, and theories of justice. *Univ Ill Law Rev.* (2019) 2019:45–110. doi: 10.2139/ssrn.3135442

59. Armstrong EA, Gleckman-Krut M, Johnson L. Silence, power, and inequality: an intersectional approach to sexual violence. *Annu Rev Sociol.* (2018) 44:99–122. doi: 10.1146/annurev-soc-073117-041410

60. Beijer U, Scheffel Birath C, DeMartinis V, af Klinteberg B. Facets of male violence against women with substance abuse problems: women with a residence and homeless women. *J Interpers Violence.* (2018) 33:1391–411. doi: 10.1177/0886260515618211

61. Khan S, Greene J, Mellins CA, Hirsch JS. The social organization of sexual assault. *Annu Rev Criminol.* (2020) 3:139–63. doi: 10.1146/annurev-criminol-011518-024456

62. Salter M, Breckenridge J. Women, trauma and substance abuse: understanding the experiences of female survivors of childhood abuse in alcohol and drug treatment. *Int J Soc Welf.* (2014) 23:165–73. doi: 10.1111/ijsw.12045

63. Bozkurt SS, Merico M, Aresti A, Darke S. Crossing borders, pushing boundaries and privileging 'marginalised' voices: Surviving motherhood and prison. In: Ross JL, Vianello F editors. *Convict Criminology for the Future*. Milton Park: Routledge (2020). p. 21–34. doi: 10.4324/9781003016458-3

64. Estrada F, Nilsson A. Does it cost more to be a female offender? A life-course study of childhood circumstances, crime, drug abuse, and living conditions. *Fem Criminol.* (2012) 7:196–219. doi: 10.1177/1557085111429783

65. Giordano PC, Cernkovich SA, Rudolph JL. Gender, crime, and desistance: toward a theory of cognitive transformation. *Am J Sociol.* (2002) 107:990–1064. doi: 10.1086/343191

66. Nilsson A. *Fånge i marginalen. Uppväxtvillkor, levnadsförhållanden och återfall i brott bland fångar. Avhandlingsserie nr. 8, Kriminologiska institutionen*. Stockholm: Stockholms universitet (2002).

67. Socialstyrelsen. *Skylla sig själv? Utbildningsmaterial om våld mot kvinnor med missbruks – eller beroendeproblem*. Västerås: Edita Västra Aros (2011).

68. Barr Ú. *Desisting Sisters: Gender, Power and Desistance in the Criminal (In)Justice System*. New York, NY: Springer (2019). doi: 10.1007/978-3-030-14276-6

69. Lightowlers C. Drunk and doubly deviant? The role of gender and intoxication in sentencing assault offences. *Br J Criminol.* (2019) 59:693–717. doi: 10.1093/bjc/azy041

70. Maruna S. Reentry as a rite of passage. *Punishm Soc.* (2011) 13:3–28. doi: 10.1177/1462474510385641

71. Scott A, Doughty C, Kahi H. 'Having those conversations': The politics of risk in peer support practice. *Health Soc Rev.* (2011) 20:187–201.

72. Svt Nyheter. *Dubbelsmäll för Kris: Nekas nya bidragspengar – måste betala tillbaka gamla*. (2021). Available online at: https://www.svt.se/nyheter/inrikes/efter-kursgranskning-kris-maste-betala-tillbaka-statligt-bidrag (accessed March 10, 2022).

73. Svt Nyheter. *Förundersökning om sexuella kränkningar inom föreningen Kris*. (2019). Available online at: https://www.svt.se/nyheter/inrikes/forundersokning-om-sexuella-krankningar-inom-foreningen-kris (accessed March 10, 2022).

74. Den långa vägen till kris nya värdegrund – jämställdhet [Internet]. Available online at: https://issuu.com/vagenut/docs/vu_2021_3/s/14663435

75. Svt Nyheter. *Kris ordförande utesluten och polisanmäld*. (2019). Available online at: https://www.svt.se/nyheter/lokalt/halland/kris-ordforande-utesluten-och-polisanmald (accessed March 10, 2022).

76. Novick G. Is there a bias against telephone interviews in qualitative research?. *Res Nurs Health.* (2008) 31:391–8. doi: 10.1002/nur.20259

77. Drabble L, Trocki KF, Salcedo B, Walker PC, Korcha RA. Conducting qualitative interviews by telephone: lessons learned from a study of alcohol use among sexual minority and heterosexual women. *Qual Soc Work.* (2016) 15:118–33. doi: 10.1177/1473325015585613

78. Trier-Bieniek A. Framing the telephone interview as a participant-centred tool for qualitative research: a methodological discussion. *Qual Res.* (2012) 12:630–44. doi: 10.1177/1468794112439005

79. Vaara E, Sonenshein S, Boje DM. Narratives as sources of stability and change in organizations:approaches and directions for future research. *Acad Manage Ann.* (2016) 10:495–560. doi: 10.1080/19416520.2016.1120963

80. Buchanan D, Dawson P. Discourse and audience: organizational change as multi-story process. *J Manag Stud.* (2007) 44:669–86. doi: 10.1111/j.1467-6486.2006.00669.x

81. Vaughan B. The internal narrative of desistance. *Br J Criminol.* (2007) 47:390–404. doi: 10.1093/bjc/azl083

82. DeKeseredy WS, Schwartz MD. *Male Peer Support and Violence Against Women: The History and Verification of a Theory*. Lebanon: Northeastern University Press (2013).

83. Svensson P. *Kvinnostrejk varje fredag – nytt upprop på sociala medier*. Göteborgsposten. (2021). Available online at: https://www.gp.se/nyheter/sverige/kvinnostrejk-varje-fredag-nytt-upprop-p%C3%A5-sociala-medier-1.43710272 (accessed March 10, 2022).

84. Burnett R, Maruna S. The kindness of prisoners: strengths-based resettlement in theory and in action. *Criminol Crim Justice.* (2006) 6:83–106. doi: 10.1177/1748895806060668

85. Buck G, Tomczak P, Quinn K. This is how it feels: activating lived experience in the penal voluntary sector. *Br J Criminol.* (2021) 62:822–39. doi: 10.1093/bjc/azab102

86. Svt Nyheter. *Miljonsmäll hotar Kris efter granskning av stödmiljoner*. (2021). Available online at: https://www.svt.se/nyheter/inrikes/ny-small-for-kris-hotas-av-miljonsmall-efter-granskning-av-kursbidrag (accessed March 10, 2022).

87. Ahmed E, Nathan H, Braithwaite J, Braithwaite V. *Shame Management Through Reintegration*. Cambridge: Cambridge University Press (2001).

88. Isdal P. *Meningen med våld*. Stockholm: Gothia Kompetens AB (2017).

89. Kriminalvården. *Organisationer som fått bidrag*. (n.d.). Available online at: https://www.kriminalvarden.se/om-kriminalvarden/samverkan-och-samarbete/statsbidrag-ansok/organisationer-som-fatt-bidrag/ (Accessed March 10, 2022).

90. Belknap J. Activist criminology: criminologists' responsibility to advocate for social and legal justice. *Criminology.* (2015) 53:1–22. doi: 10.1111/1745-9125.12063

91. Ross JI, Jones RS, Lenza M, Richards SC. Convict criminology and the struggle for inclusion. *Crit Criminol.* (2016) 24:489–501. doi: 10.1007/s10612-016-9332-9

92. The Roestone Collective. Safe space: towards a reconceptualization: safe space: towards a reconceptualization. *Antipode.* (2014) 46:1346–65. doi: 10.1111/anti.12089

frontiers | Frontiers in Psychiatry

TYPE Perspective
PUBLISHED 08 August 2022
DOI 10.3389/fpsyt.2022.939105

OPEN ACCESS

EDITED BY
Anette Skårner,
University of Gothenburg, Sweden

REVIEWED BY
Karin Berg,
University of Gothenburg, Sweden

*CORRESPONDENCE
Eilidh Moir
eilidh.moir1@nhs.scot

SPECIALTY SECTION
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

RECEIVED 08 May 2022
ACCEPTED 05 July 2022
PUBLISHED 08 August 2022

CITATION
Moir E, Gwyther S, Wilkins H and Boland G (2022) Hidden GBV: Women and substance use.
Front. Psychiatry 13:939105.
doi: 10.3389/fpsyt.2022.939105

Hidden GBV: Women and substance use

Eilidh Moir[1]*, Sophie Gwyther[2], Heather Wilkins[3] and Gillian Boland[4]

[1]NHS Tayside, Dundee, United Kingdom, [2]Dundee Health and Social Care Partnership, Dundee, United Kingdom, [3]Dundee Volunteer and Voluntary Action, Dundee, United Kingdom, [4]Dundee Women's Aid, Dundee, United Kingdom

Gender based violence (GBV) is disproportionately higher in women who use substances. This vulnerable population are also at a disadvantage when it comes to accessing harm reduction services. Between May and October 2021 there were 77 cases discussed at Multi-Agency Risk Assessment Conferences (MARAC) in Dundee. The majority of these cases (62) had substance misuse as a risk factor. It is at these meetings that the vulnerability of women comes to the fore and issues of violence are highlighted. During this time period, 44 cases involved the victim being strangled/choked or suffocated and 43 cases had weapons as a risk factor. 56 of the cases included children. The issue of GBV or Intimate Partner Violence (IPV) is often hidden, especially in and by those affected by substance use. Women experiencing GBV require specialist support, often across different services to address different needs. How well violence against women is understood in relationships that are affected by drugs is difficult to determine. In many instances it isn't until a MARAC meeting, or similar crisis point is met, that the extent of the abuse is highlighted. What services can provide singularly is limited in many of these cases but joint-working and innovative practices, such as the Hub model and the Gendered Services Project in Dundee, strive to change the landscape of service delivery.

KEYWORDS

women, substance and alcohol use, GBV, support service needs, recovery, gendered services

Introduction

The issue of substance misuse across Scotland has long been a cause for concern, particularly in the city of Dundee. Situated in Eastern Scotland, and a third of the local authorities that make up the region of Tayside, Dundee is most commonly cited as the drug death capital of Europe (1). The deaths figures for Dundee are stark and numbers in the city continued to rise between 2016 and 2020 to equate to a rate of 43.1 per 100,000 of the population (2). In 2019 deaths from drugs in Dundee increased by 8%, the breakdown of this rise by sex proved to be even more alarming. Deaths in men fell by 2% during this year but deaths in women increased by 37%.

In 2018, already with a lens on rising deaths from drugs, the Scottish Government published findings to try to understand what was already a disproportionate increase in deaths in women. The report cited multiple interconnected factors as rationale for such a stark rise in the number of deaths among women who use drugs. These include

co-morbidities, polypharmacy and aging, but also bereavement and loss of maternal or parenting roles. Crucially, what the report highlighted was what the authors termed, "ongoing risk among women engaged with drug treatment services, potentially reflecting failures to meet needs or missed opportunities" [3, p. 9]. Although service provision for those who use substances was available, the needs of women, and indeed engaging women in services, were not being met.

Dundee city had the highest police recordings of domestic abuse in Scotland in 2020–2021, with 177 per 10,000 of the population (Scotland figure is 119 per 10,000 population) (3)[1]. Further, sexual crimes in Dundee and across Scotland rose in the same year; For Dundee this was an increase of 45% and an overall increase of 15% for Scotland compared to the previous year (4).

Secrecy around violence is common and often not visible until a crisis point is met (5). For some, this might be presentation at a service who then raise significant concerns, enough to call for a Multi-Agency Risk Assessment Conference (MARAC) to be held. As an example, within a 6-month period in Dundee (May to October 2021), 77 MARAC meetings were held. The vast majority of these cases discussed substance misuse alongside weapons and violence as risk factors. Further, 56 cases acknowledged that children were involved or at risk.

MARACs are convened in order for specialists across voluntary and statutory sectors, including an Independent Domestic Violence Advisor (IDVA), to share information they have about a victim. The assumption of the MARAC is that no one agency will know the full details of the victim's life and experiences but they can all add perspective and evidence that are important to the victim's safety. The outcome for each meeting is that a plan for safety and support for the victim is made by the specialists around the table. Recommendations for safeguarding children and managing the behavior of the perpetrator can also be made. It is the strength of interagency working and the distinct knowledge and expertise of each agent which enables cross working and positive outcomes to be achieved. It is reported that up to 60% of domestic abuse victims report no further violence following IDVA support and MARAC interventions (6).

If we know that drug deaths in women are rising in Dundee against a backdrop of violence in terms of domestic and sexual abuse, can services recognize and respond to these complex needs? Local evidence gathered from women accessing substance misuse services uncovers the complexities of drug use, shining a light on the pivotal roles that GBV and mental ill health have in increasing vulnerability in women. It is posited here that substance misuse organizations and homelessness shelters respond to the gendered expectations of men and women, not the complex vulnerabilities they actually experience. More men than women tend to access services and women have specific needs and barriers in place which can make access more difficult for them.

Taking a gendered approach means looking at the group who are having difficulty accessing services (women) and redesigning those services to meet their needs more effectively. Gaining insight from lived experience is crucial to this to recognize, for example, barriers for access to services, trauma, stigma, and GBV. The outcome for services can then be a better understanding of, in this case women's needs, and creating change in the way they deliver support.

Substance use and GBV

Literature on substance use and violence surrounding women is scarce and has tended to focus on alcohol use owing to a smaller and harder to reach drug use population (7). Therefore, gathering sufficient data to understand the scope of the problem continues. A link between perpetration of physical violence and substance use in men has been discussed but there are limited studies into the relationship between women's substance use and experiences (8).

In Canada, studies estimate that anywhere between 25 and 50% of women who are engaged with substance use treatment programs have experienced violence (9). Moreover, substance use specialists working in the treatment facilities report they are ill-equipped to support women experiencing violence alongside substance use, similar to the findings noted above for Dundee and Scotland. The literature describes services that provide support for issues such as substance use and mental health as the product of language, funding, and models. The services themselves then evolve discretely around specific themes or sources of finance. Services focusing on one issue can be at the exclusion of others and it is in the lack of addressing the co-existence of issues, such as substance use and GBV, and the vulnerabilities that emerge from substance use, that gaps in service provision can be seen (10).

The problem of hidden GBV in a female population who use substances may be larger than we currently understand. Studies in England and Scotland show that women may avoid accessing services due to stigma, concerns about losing children, shame, or previous negative interactions (11). As a result, they and their experiences may not appear in research data, and if they do, the data is so small that no insight or conclusions can be drawn (11, 12). This lack of data, perhaps due to women's fears of disclosing information or embarrassment, means that what we know about women's experiences, and complex needs they present, is likely to be the tip of the iceberg.

1 Across Scotland in 2020-2021, the highest incidence rate was among the age group 31-35 years old for both victims and accused. Nine in ten incidents happened inside the home and four in five incidents involved a female victim and male accused.

Understanding complex need

Interagency and more specifically, engaging specialists to come together to find solutions and put in place support and interventions, appears to have an impact on complex cases involving substance use and violence. Women's services in Dundee have been working to try to understand and learn from this type of cross-agency working. Dundee Women's Aid (DWA) became increasingly concerned a number of years ago about a group of women affected by domestic abuse issues. At their presentation to DWA refuge services women described a range of other complex needs, including substance use. A group of local organizations led by DWA undertook a test of change to explore how interventions were coordinated and delivered within existing resources. The test of change allowed DWA to secure funding to develop a project whereby women with multiple complex needs could access urgent psychological assessment, treatment planning, and intervention. Moreover, this work led to crucial conversations within local strategic planning groups. These conversations explored gender and the specific needs that women may have that might prevent them from accessing appropriate care and support, and where they do engage with services, engagement being successful.

A study was carried out by researchers at the University of Dundee to explore these themes and capture need. Focus groups with 39 women who use services and 53 members of staff were conducted (13). The findings showed that women felt that services did not take them or their concerns seriously, and in some cases even judging or placing conditions on access to support. Further, it was reported that staff were not trained in GBV and as a result did not know how to respond adequately to women seeking help (13).

Service redesign

There are then, two cross cutting themes around women's substance use and GBV: Getting women into services and redesigning services to better suit women's needs. In many ways these two themes are interdependent. The current, albeit small, body of research tells us that there's an imperative to remove the vacuum of addressing substance misuse for women as a singularity and instead integrating other services not only to attract women into recovery but also meet their needs (14).

The context of treatment services, both statutory and third sector, in the UK sits within a changing landscape of budgetary constraints. For statutory services, various changes to health, social and treatment services have meant under-staffing, under-skilled staffing, lack of continuity, cuts in provision or all out closure of services (15). Although there is a rhetoric of recovery-oriented care, wider determinants such as changes to the benefits system affect women in particular. Looking more closely at existing services, embedding practices of creating trauma informed environments have been explored in research into women and homelessness (16). The core recommendations from the research echo much of the findings of the Dundee and Scotland research and reports, referenced earlier: the creation of female-specific support and services, training and supporting staff to respond to trauma and women's complex needs, link with specialists in GBV to increase knowledge and best support those in services, and to guarantee equitable access for all women [(16) p. 21, (17)].

It is clear that there is alignment amongst those investigating service improvements for women, particularly in the spheres of substance use and GBV. We know that in a lot of cases, a crisis threshold is met before violence is understood and addressed. However, there are also barriers to accessing services that are particular to women. Evidence shows that a large proportion of women do not access services and in instances where they do engage, it is short-lived and ineffectual (13, 18). Further anecdotal local evidence on women's disengagement with services, investigated by Tayside Council on Alcohol, identified reading and writing difficulties, limited access to forms, documents and bank accounts, lack of access to the internet and stigma and safety fears.

Future direction: The "Hub" model

The recognition that women's issues are distinct and a drive toward women-specific service design permeates the current conversation. What we understand about need in Dundee from local services, and figures on domestic abuse and sexual crimes, is that women's needs are complex and there is an imperative for service approaches to adapt to these. The Dundee Drugs Commission in 2019, convened to investigate the impact of drug use and the response of services in the city, called for gender-sensitive approaches to service planning [(19), p. 6]. Service users interviewed by the Commission highlighted gender-specific need and an appetite for recognising and responding to gendered experiences (15). Individualised services do go some way in recognising need, irrespective of gender but the literature and experiences of service users suggests more can be done. Specifically, in training staff to be confident and knowledgeable in responding to gender- based violence, allowing timely support which fits into women's lives around work or childcare and in improving the co-ordination of multi-agency responses to women with complex needs.

In Dundee there has been a move toward improving services for women through the Gendered Services Project. The Project engages women with lived experience to influence its direction and to ensure that the challenges and needs of women with complex needs are represented. So far, women involved in the project have presented many of the themes discussed here: barriers to accessing services, stigma especially in relation to

substance use and gender-based violence, the lack of a trauma informed approach within services, and a lack of trusting relationships. It is the work of the Project to drive these issues forward to inform and engage local services and create change. To be effectual and embed this thinking into services for women, Women's Rape and Sexual Abuse Centre is the lead partner in a bid to create Dundee's first Women's Hub. In partnership with Dundee Drug and Alcohol Recovery Service, Criminal Justice Service Women's Team, Tayside Council on Alcohol and third sector partners, We Are With You, Hillcrest Futures, Dundee Women's Aid and Barnardos, the Women's Hub will be a one stop shop for women with substance use and complex needs. The Hub will allow direct access to support from a range of organisations using a joined-up approach to service provision. Services will be trauma informed and person centred. This model could be replicated in other areas to improve the quality of relationships between services, really address the complex issues women experience, provide a holistic, emotionally and physically safe space and work from a strengths-based empowerment model where resilience is emphasised over issues and problematic behaviour. The challenge services face in supporting women who have complex substance use and GBV issues is considerable but there are strategies, such as The Hub model, that aim to provide gendered, joined-up approaches of support and empowerment.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

SG contributed to writing, provided data and local Dundee research. HW provided wider literature and local data. GB provided local data and context. EM contributed to literature search, called writing meetings, structured the paper, and contributed to writing. All authors contributed to the article and approved the submitted version.

Funding

This publication was funded from the Gendered Services Project by the Corra Challenge Fund (Ref No - Challenge Fund-19/972).

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

1. SDF, Scottish Drugs Forum [2021]. Available online at: https://www.sdf.org.uk/dundee-set-drugs-commission-tackle-increase-drug-related-deaths/ (accessed April 18, 2022).

2. "NRS Drug Related Deaths 2020 (2022). Available online at: https://www.nrscotland.gov.uk/files//statistics/drug-related-deaths/20/drug-related-deaths-20-pub.pdf

3. Scottish Government, Domestic Abuse Recorded by the Police in Scotland (2022). Available online at: https://www.gov.scot/publications/domestic-abuse-recorded-police-scotland-2020-21/documents/ (accessed April 28, 2022).

4. Scottish Government. Recorded Crime in Scotland (2022). Available online at: https://www.gov.scot/publications/recorded-crime-scotland-2020-2021/pages/3/ (accessed May 01, 2022).

5. AVA and Agenda. (2019). Breaking Down the Barriers. Available online at: https://weareagenda.org/wp-content/uploads/2019/02/Breaking-down-the-Barriers-full-report-FINAL.pdf (accessed May 01, 2022).

6. SafeLives, MARAC (2022). Available online at: https://safelives.org.uk/sites/default/files/resources/MARAC%20FAQs%20General%20FINAL.pdf (accessed April 28, 2022).

7. Testa M, Livingston JA, Leonard KE. Women's substance use and experiences of intimate partner violence: a longitudinal investigation among a community sample. *Addict Behav.* (2003) 28:1649–64. doi: 10.1016/j.addbeh.2003.08.040

8. Kaufman Kantor G, Asdigian NL. Gender differences in alcohol-related spousal aggression. In: Wilsnack RW, Wilsnack SC, editors. *Gender and Alcohol: Individual and Social Perspectives. Rutgers Center of Alcohol Studies.* (1997). p. 312–34.

9. Mason R, O'Rinn SE. Co-occurring intimate partner violence, mental health, and substance use problems: a scoping review. *Glob Health Action.* (2014) 7:24815. doi: 10.3402/gha.v7.24815

10. Markoff LS, Reed BG, Fallot RD, Elliott DE, Bjelajac P. Implementing trauma-informed alcohol and other drug and mental health services for women: lessons learned in a multisite demonstration project. *Am J Orthopsychiatry.* (2005) 75:525–39. doi: 10.1037/0002-9432.75.4.525

11. Sosenko F, Bramley G, Johnsen, S. Gender Matters. I-SPHERE, Heriot-Watt University (2020). Available online at: https://lankellychase.org.uk/wp-content/uploads/2020/02/Gender-Matters-full-report-Feb-2020.pdf (accessed April 24, 2022).

12. DMSS Research . *Invisible Women: Consultations With Women Affected by Severe and Multiple Disadvantage.* (2017). Available online at: https://www.dmss.co.uk/pdfs/Women-and-Girls-Facing-Severe-and-Multiple-Disadvantage-Full-Report-Oct2016.pdf (accessed April 24, 2022).

13. Lopez, M. Smith, FM. *Gendered Approaches to Service Provision*. University of Dundee, Dundee (2019). Available online at: https://www.dvawp.co.uk/sites/default/files/2020-05/Gendered%20Approaches%20to%20Service%20Provision%20-%20Final%20Report.pdf (accessed May 04, 2022).

14. Pallatino C, Chang JC, Krans EE. The intersection of intimate partner violence and substance use among women with opioid use disorder. *Subst Abus.* (2021) 42:197–204. doi: 10.1080/08897077.2019.1671296

15. Tweed EJ, Miller RG, Schofield J, Barnsdale L, Matheson C. Why are drug-related deaths among women increasing in Scotland? A mixed-methods analysis of possible explanations. *Drugs.* (2022) 29:62–75. doi: 10.1080/09687637.2020.1856786

16. PIE4shelters. *A Guide to Improving Trauma and Gender Informed Responses to Women Experiencing Homelessness and Gender Based Violence.* (2021). Available online at: https://www.feantsa.org/download/pie4shelters-guide-ireland1744299586344888453.pdf (accessed May 01, 2022).

17. Bimpson E, Green H, Reeve K. *Women, Homelessness and Violence: What Works?* (2021). Available online at: https://assets-global.website-files.com/59f07e67422cdf0001904c14/61017dbd205aeb5f3bdd366b_CFHI_WOMEN_REPORT_V03.pdf (accessed April 27, 2022).

18. Dundee Drugs Commission. *Responding to Drug Use with Kindness, Compassion and Hope.* (2019). Available online at: https://www.dundeecity.gov.uk/sites/default/files/publications/part1reportfinal.pdf (accessed May 26, 2022).

19. Testa M. The role of substance use in male-to-female physical and sexual violence: a brief review and recommendations for future research. *J Interpers Violence.* (2004) 19:1494–505. doi: 10.1177/0886260504269701

frontiers | Frontiers in Psychiatry

TYPE Systematic Review
PUBLISHED 26 August 2022
DOI 10.3389/fpsyt.2022.951682

OPEN ACCESS

EDITED BY
Guilherme Messas,
Faculty of Medical Sciences, Brazil

REVIEWED BY
Weiming Tang,
University of North Carolina at Chapel Hill, United States
Lucy Webb,
Manchester Metropolitan University, United Kingdom

*CORRESPONDENCE
Jeffrey V. Lazarus
jeffrey.lazarus@isglobal.org

SPECIALTY SECTION
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

RECEIVED 24 May 2022
ACCEPTED 25 July 2022
PUBLISHED 26 August 2022

CITATION
Guy D, Doran J, White TM, van Selm L, Noori T and Lazarus JV (2022) The HIV pre-exposure prophylaxis continuum of care among women who inject drugs: A systematic review. *Front. Psychiatry* 13:951682. doi: 10.3389/fpsyt.2022.951682

The HIV pre-exposure prophylaxis continuum of care among women who inject drugs: A systematic review

Danielle Guy[1], Jason Doran[1,2,3], Trenton M. White[1], Lena van Selm[1], Teymur Noori[4] and Jeffrey V. Lazarus[1,5]*

[1]Barcelona Institute for Global Health (ISGlobal), Hospital Clínic, University of Barcelona, Barcelona, Spain, [2]National Infection Service, UK Health Security Agency, London, United Kingdom, [3]London School of Hygiene and Tropical Medicine, University of London, London, United Kingdom, [4]European Centre for Disease Prevention and Control, Stockholm, Sweden, [5]Faculty of Medicine and Health Sciences, University of Barcelona, Barcelona, Spain

Introduction: People who inject drugs have a substantial risk for HIV infection, especially women who inject drugs (WWID). HIV pre-exposure prophylaxis (PrEP), a highly-effective HIV prevention drug, is uncommonly studied among WWID, and we aimed to synthesize existing knowledge across the full PrEP continuum of care in this population.

Methods: We systematically searched for peer-reviewed literature in three electronic databases, conference abstracts from three major HIV conferences, and gray literature from relevant sources.
Eligibility criteria included quantitative, qualitative or mixed-methods studies with primary data collection reporting a PrEP-related finding among WWID, and published in English or Spanish between 2012 and 2021. The initial search identified 2,809 citations, and 32 were included. Data on study characteristics and PrEP continuum of care were extracted, then data were analyzed in a narrative review.

Results: Our search identified 2,809 studies; 32 met eligibility requirements. Overall, awareness, knowledge, and use of PrEP was low among WWID, although acceptability was high. Homelessness, sexual violence, unpredictability of drug use, and access to the healthcare system challenged PrEP usage and adherence. WWID were willing to share information on PrEP with other WWID, especially those at high-risk of HIV, such as sex workers.

Conclusions: To improve PrEP usage and engagement in care among WWID, PrEP services could be integrated within gender-responsive harm reduction and drug treatment services. Peer-based interventions can be used to improve awareness and knowledge of PrEP within this population. Further studies are needed on transgender WWID as well as PrEP retention and adherence among all WWID.

KEYWORDS

pre-exposure prophylaxis (PrEP), PrEP care continuum, women who inject drugs, human immunodeficiency virus, people who inject drugs

Introduction

Injecting drug use is a major driver of HIV infection globally, with up to ten percent of HIV infections attributable to injecting drug use (1). People who inject drugs (PWID) are 22 times more likely to acquire HIV compared to those who do not, and one in every eight individuals who injects drugs is living with HIV (1, 2). Women who inject drugs (WWID) are particularly at increased risk of HIV infection compared to men, primarily as a consequence of high-risk injection and sexual practices, such as sharing needles and engaging in condomless sex (3). This is due to a variety of structural factors including the criminalization of drug use, which disproportionately affects women who use drugs (4), gendered injecting practices, such as women being forced to share needles (5), and gender-based violence, which is associated with high-risk sexual behaviors and avoidance of health services among WWID (3). Additionally many WWID participate in transactional sex or sex work, which is associated with higher rates of HIV due to gendered power dynamics, which increase women's exposure to sexual violence and limit their abilities to negotiate safe sex (4, 6).

HIV risk among WWID is compounded by the intersection of stigma related to both substance abuse and gender particularly due to gendered expectations of morality and motherhood (7). This stigma impacts WWID within and outside of injecting communities (8). Outside of injecting communities, this stigma can diminish trust in the health system and health providers, which may decrease health-seeking behaviors and access to HIV-related and other health services, including harm reduction services (5, 8, 9). Moreover, harm reduction services for people who inject drugs (PWID), are often male-oriented, meaning they serve primarily male clientele and lack the staff or facilities to address the distinct needs of women (5). As a consequence, WWID often do not have their unique needs met in these settings and may be forced to engage in unsafe injecting.

A possible solution to decrease both injection and sexual-related HIV risk among WWID is pre-exposure prophylaxis (PrEP) (10). PrEP is highly effective in preventing HIV (11–13), and its use has been expanding rapidly since the World Health Organization (WHO) recommended it for high-risk populations in 2015 (14, 15). By 2019, 180 countries had adopted these recommendations, but with only an estimated 626,000 PrEP users in only 77 countries, primarily in North and South America and sub-Saharan Africa (16).

Even in high-income countries, WWID are not identified as a priority group for PrEP interventions. Effective PrEP interventions should consider all high-risk populations and include the full PrEP continuum of care, including PrEP initiation, adherence, and retention or disengagement in care (17). While there is a growing number of studies on WWID and PrEP, there is no synthesis of the current evidence base. One study previously examined the PrEP care cascade among PWID, but it only focused on the US and did not examine gender differences (18). A global review of the PrEP care cascade focused more broadly on women who use drugs and female sex workers (19). However, it did not consider transgender women, who are at higher risk of HIV (2), it did not consider the full PrEP cascade, and it only included peer-reviewed literature. As such, the aim of this study is to examine the entire PrEP continuum of care among women (cis and trans) who inject drugs globally.

Methods

We reviewed studies that considered any part of the PrEP care cascade among women (cis and trans) who inject drugs globally. For each study, we analyzed at least one of the following variables, based on the framework by Nunn et al. (17): PrEP awareness, PrEP knowledge, access to PrEP care, HIV risk perception, PrEP acceptability, PrEP usage, PrEP adherence, or retention in PrEP care (see Figure 1) or any other relevant PrEP variables.

Included studies and search strategy

Any quantitative, qualitative, or mixed-methods study with primary data collection was eligible for inclusion. We did not include commentaries, editorials, or reviews. However, the bibliographies of relevant reviews were searched for relevant articles for inclusion. Publications must have been published from 2012 onwards, when PrEP was first approved by the US Federal Drug Administration to prevent HIV in at-risk populations. We only included publications which focused specifically on women or studies that present gender differences of relevant results. All publications must have been reported in either English or Spanish.

A comprehensive literature search was completed in PubMed/Medline, CINAHL, and PsycINFO. The search string included subject headings and keywords related to HIV and PrEP, the PrEP care continuum, injecting drug use, and gender/sex (see Table 1). We reviewed the references of included papers to check for other relevant studies. We also searched for abstracts in three major, relevant conference proceedings: the International AIDS Conference, HIV Research for Prevention conference, and the International AIDS Society Conference on HIV Science. Additionally, we searched clinicaltrials.gov, the WHO's International Clinical Trials Registry Platform, and for additional gray literature from Harm Reduction International, the Women in Harm Reduction International Network, the International Network of People Who Use Drugs, the International Drug Policy Consortium, Correlation European

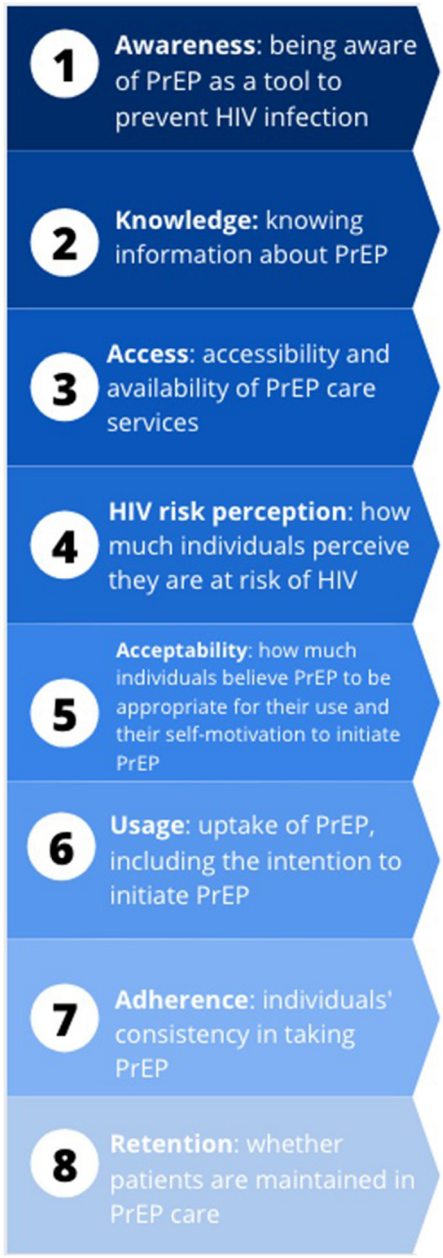


FIGURE 1
PrEP continuum of care variables and definitions Nunn et al. (17)

Harm Reduction Network, and the New York Academy of Medicine's Gray Literature Database.

TABLE 1 Search strategy (PubMed 17 June 2021).

Search	Query	Results (since 2012)
#1	["HIV" AND ("care" OR "risk" OR "prevention" OR "service")] OR "PrEP" OR "Pre-Exposure prophylaxis"[Mesh] OR "treatment as prevention" OR "TasP" OR "Pre Exposure Prophylaxis" OR "pre-exposure chemoprophylaxis*" OR "pre-exposure antiretroviral prophylaxis" OR "Antiretroviral chemoprophylaxis" OR "Truvada"	88,161
#2	"Injecting drug use*" OR "Intravenous drug use*" OR "People who inject drugs" OR "Women who inject drugs" OR "Women who use drugs"OR "PWID" OR "WWID" OR "Addict*" OR "IDU" OR "People who use drugs" OR "PWUD" OR "Substance Abuse, Intravenous"[Mesh]	73,573
#3	"Patient compliance"[Mesh] OR "Medication Adherence"[Mesh] OR "Attitude to Health"[Mesh] OR "Compliance" OR "Access" OR "Adherence" or "Perception" OR "Non-compliance" or "Non-adherence" or "Attitude" OR "Acceptability" OR "Feasibility" OR "Retention" OR "Engagement" OR "Disengagement" OR "Usage" OR "Uptake" OR "Willingness" OR "Initiation" OR "Knowledge" OR "Availability"	1,713,855
#4	"Women"[Mesh] OR "Female"[Mesh] OR "Women's Health"[Mesh] OR "Women's Health Services"[Mesh] OR "Sex"[Mesh] OR "Sex Characteristics"[Mesh] OR "Sex Distribution"[Mesh] OR "Gender Identity"[Mesh] OR "Women" OR "Gender" OR "Sex" OR "Trans women" OR "Female"	3,460,850
#5	#1 AND #2 AND #3 AND #4	1,573

Data extraction and synthesis

All records were imported into Mendeley and duplicated records were removed. Two reviewers (DG and TMW) screened titles and abstracts of records identified through the search strategy, and disagreements were resolved between the two. Full texts of records were assessed for inclusion by two reviewers (DG and JD); disagreements were resolved with another reviewer (TMW).

Data were extracted by two reviewers (DG and LvS) into a pre-specified data extraction template in Microsoft Excel. Information included authorship, title, study aims, design, setting, population, sample size, PrEP care continuum findings, and other relevant findings. Data were then validated by another reviewer (TMW) and differences were reconciled among two reviewers (DG and TMW). Narrative synthesis, organized according to each step of the PrEP care cascade, was performed to describe the characteristics and findings of all included studies.

Risk of bias assessment

Two reviewers (DG and LvS) assessed risk of bias for each study individually and when scores differed, discrepancies were resolved through discussion between the two reviewers. Risk of bias was assessed using the 2018 Mixed Methods Appraisal Tool (MMAT) (20), which allows for evaluation of qualitative, quantitative, and mixed method studies. Each study received a quality score ranging from 0 (meeting no criteria) to 5 (meeting all criteria) based on the MMAT criteria.

Results

The initial search yielded 3,145 records, and 2,809 remained after removing duplicates. After screening titles and abstracts, 83 articles remained to be assessed for eligibility at the full-text level. Fifty-one articles were excluded in total. Articles were excluded because they did not provide gender disaggregated results ($n = 21$), did not include injecting drug use in their analyses ($n = 20$), did not show PrEP outcomes ($n = 6$), or did not use primary data collection ($n = 4$; Figure 2).

Characteristics of included studies

Thirty-two studies were included in this review (see Table 2). Studies primarily took place in the United States (21, 22, 26–31, 35, 36, 39–47, 49–51) but also in Thailand (37, 38), Canada

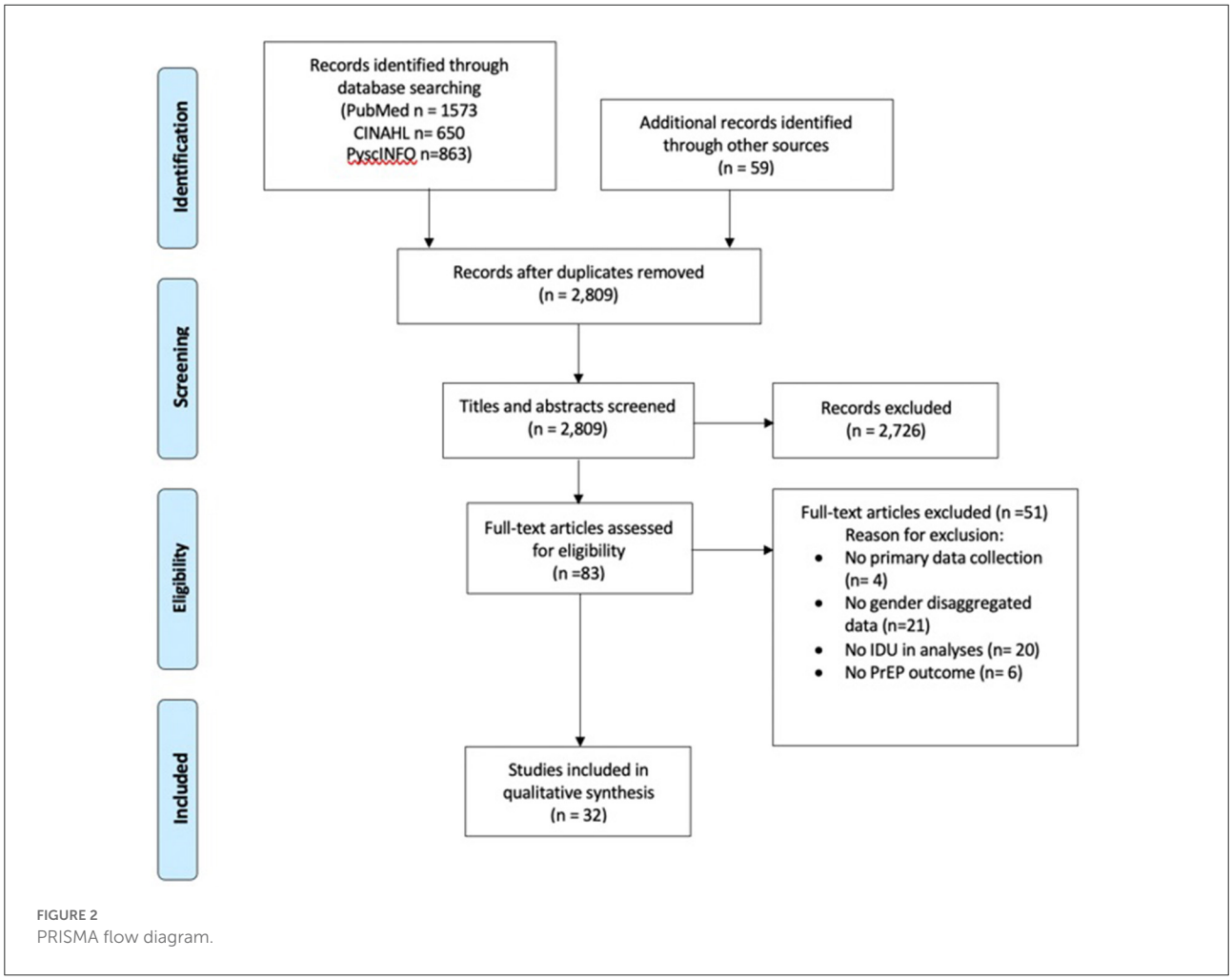


FIGURE 2
PRISMA flow diagram.

(25), India (24), Kenya (23), and Malaysia (32). One study included participants globally (34) and another included those in Europe and Asia only (33). Study populations were primarily adult (18+) PWID (24, 25, 33–39, 43, 44, 46, 47, 52) or WWID only (22, 23, 26–31, 49, 50). Other populations included female sex workers (41), transgender women (32), prison inmates (21), individuals at high-risk of HIV (51), women with substance abuse disorders (42), and opiate users (40, 48). Sample sizes ranged from 9 (23) to 10,538 (24) participants. Across the studies, where sample sizes of WWID were provided, 3,216 WWID were included. The average quality score for the studies was 4.2, and studies were not excluded based on quality rating (see Table 3).

PrEP continuum of care among WWID

PrEP awareness

Data on awareness of PrEP among WWID was reported in 14 studies (22, 24, 31, 32, 39–42, 44, 46, 50–53). Awareness of PrEP among WWID varied (range: 7–66%). Walters et al. (50) conducted a study among WWID in New York City, and showed that WWID who participated in transactional sex were more than three times more likely to be aware of PrEP than those who did not (aOR = 3.32; 95% CI = 1.22–9.0). In this same study, WWID who had a conversation about HIV prevention at syringe exchange programs were almost eight times more likely to be aware of PrEP than those who did not (aOR = 7.61; 95% CI = 2.65–21.84) (50). According to a study by McFarland et al. (39) among PWID in San Francisco (USA), WWID were more likely to be aware of PrEP than their male counterparts (63.4 vs. 52.7%, respectively, $p = 0.025$) (39). In a study on PrEP awareness among PWID in Philadelphia, injecting drug users that were aware of PrEP were more likely to be women (35.5 vs. 23.9%, $p = 0.03$) (44). In another study comparing PrEP awareness among various high-risk groups in New York, WWID had decreased odds of PrEP awareness compared to men who have sex with men (AOR: 0.18; 95% CI: 0.05–0.6) (51). In one study that examined awareness among individuals with opiate use disorder, there were no significant differences in PrEP awareness by gender (40).

PrEP knowledge

Knowledge of PrEP among WWID was assessed in three studies (31, 34, 39). In a study conducted by McFarland et al. (39), 38.9% of WWID knew that PrEP could prevent HIV transmission from sharing injection paraphernalia, and this knowledge did not differ between genders (39). Footer et al. examined PrEP knowledge among 16 WWID and female sex workers, and reported that knowledge was "low" among these populations, but this was not quantified (31). In contrast, in the study conducted among members of the International Network of People who use Drugs (INPUD) (34) most participants expressed that they had sufficient information on PrEP.

Access to PrEP care

Four studies examined access to PrEP care (33, 34, 43, 51). Notably, members of INPUD expressed the ethical concerns over providing WWID with knowledge about PrEP in settings where PrEP is not available (34). In Roth et al.'s study examining PrEP acceptance and access among PWID, 47.7% of WWID had seen a primary care physician in the past 6 months and 15.4% had been to an annual women's wellness exam (43). In the Walters et al. study among high-risk groups in New York City and Long Island, 25 and 32% of WWID, respectively, had exposure to HIV prevention professionals (50).

Regarding where WWID preferred to receive care, Roth et al. indicated that WWID preferred to be screened for HIV at the syringe exchange program rather than traditional sexually transmitted infection (STI) clinics. In particular, 90% of WWID indicated that they preferred HIV testing at a mobile van clinic (43). Similarly, members of INPUD also noted that community based services would be necessary for PrEP to be accessible to WWID given stigma toward PWID and the criminalization of drug use (33).

HIV risk perception

Four studies considered HIV risk perception (21, 24, 26, 54). Two studies quantitatively examined HIV risk perception among WWID (pooled sample size = 128) which averaged at 53.6% of individuals perceiving themselves to be at high risk of HIV (29, 48). In a PrEP demonstration study among WWID in Philadelphia, USA, participants indicated that periods of high drug consumption and engagement in transactional sex elevated their perceived risk of HIV. This also increased their desire to use PrEP (29).

In a qualitative study of WWID in Philadelphia, USA, women who were regularly engaged in harm reduction services had lower perceptions of HIV risk compared to women not engaged in such services. Overall, WWID were particularly concerned about obtaining HIV from sexual assault and accidental needlesticks, which positively impacted their decision to initiate PrEP (26).

In one survey examining HIV risk perception among people in prison in the United States, injecting drug use was positively correlated with perceived risk of HIV seroconversion in prison, and this relationship was slightly stronger among women than men ($p < 0.01$) (21). One study that examined awareness of and willingness to use PrEP among PWID and men who have sex with men (MSM) in India found that low perceived self-risk of HIV infection was the most common reason for being unwilling to use PrEP overall (24). Among those unwilling to use PrEP,

TABLE 2 Characteristics of included studies.

References	Study design	Setting	Population (sample size)	PrEP variables	Findings
Alarid and Hahl (21)	Cross-sectional survey	United States	Prison inmates ($N = 595$; $n = 260$ women)	HIV risk perception	IDU was positively associated with the perceived risk of HIV seroconversion.
Bass et al. (22)	Focus groups	United States	WWID using a large urban syringe exchange ($N = 24$)	Prep awareness PrEP acceptability PrEP usage	Sixty-six percentage of WWID were aware of PrEP; 41.6% of WWID initiated PrEP; Most (unclear how many) were interested in PrEP, but seeing a doctor was a significant barrier. Other barriers were homelessness and potential theft of medication. Facilitators of PrEP use could include providing it at the syringe exchange, providing it on a daily basis and in pill packs.
Bazzi et al. (23)	Interviews	Kenya	HIV-uninfected WWID ($N = 9$)	PrEP awareness PrEP acceptability	Only one woman had heard of oral PrEP. Generally, acceptability was high, but women were concerned about unknown side effects and efficacy. One woman was concerned about not being able to tolerate PrEP during drug withdrawal. Another woman had concerns about the increase of condomless sex with the use of PrEP and STIs. Drug use was not a significant deterrent to adopting or adhering to PrEP.
Belludi et al. (24)	Questionnaire	India	PWID ($n = 10,538$; $n = 313$ WWID) and MSM ($n = 8,621$)	PrEP awareness HIV risk perception PrEP acceptability	Gender was not associated with willingness to use PrEP in adjusted and unadjusted analyses. Sixty-two percentage of WWID were willing to use PrEP, 29% did not endorse self-perceived HIV risk as a reason for unwillingness; 9% endorsed a lack of self-perceived HIV risk for unwillingness.
Corcorran (52)	Cross-sectional survey	United States	PWID at syringe service providers ($N = 348$; $n = 130$ WWID)	PrEP awareness PrEP acceptability	Gender was not associated with willingness to use PrEP. Fifty-six percentage of women were aware of PrEP. Correlates of interest included being high-risk for HIV (i.e., meth/heroin use, exchange sex, and experiencing homelessness, and sharing injection equipment), and being PrEP aware.
Escudero et al. (25)	Questionnaire	Canada	HIV-negative PWID ($N = 543$; $n = 166$ WWID)	PrEP acceptability	Forty-four percentage of WWID were willing to use PrEP. More WWID were willing to use PrEP compared to their male counterparts [OR 1.52 (1.05–2.22) $p = 0.028$]. Side effects of PrEP was a main barrier to PrEP acceptability. Willingness to use PrEP was also positively correlated with younger age [adjusted odds ratio (AOR) = 1.30 per 10 years younger; 95% CI: 1.05–1.59], no regular employment (1.67; 1.05–2.65), requiring help injecting (2.14; 1.11–4.11), sex work (2.29; 1.01–5.20), and multiple recent sexual partners (2.00; 1.07–3.74).
Felsher et al. (26)	Cross-sectional survey	United States	HIV-negative, cisgender WWID at a syringe service provider ($N = 89$)	PrEP usage	77.5% of women initiated PrEP. PrEP initiation was significantly associated with reporting sexual assault ($p = 0.003$), higher income ($p = 0.06$), frequency of SSP attendance ($p = 0.001$), and inconsistent condom use ($p = 0.03$).

(Continued)

TABLE 2 (Continued)

References	Study design	Setting	Population (sample size)	PrEP variables	Findings
Felsher et al. (27)	Interviews	United States	HIV-negative WWID participating in a PrEP demonstration project (N = 20)	PrEP communication	PrEP conversations occurred within 30/57 relationships. Motivations for communication were to benefit others (enabled by HIV risk, gender similarity, perception of peer at risk of HIV, little negative outcomes expected from discussion), benefit themselves (to increase emotional connectedness and potential support from a peer), or perceived obligation (negative outcome perceived from not disclosing PrEP use when in a shared living space).
Felsher et al. (28)	Interviews	United States	WWID (N = 25)	HIV risk perception PrEP acceptability	Most WWID were concerned about HIV risks related to sexual assault and environmental forces beyond their control (e.g., accidental needle sticks). WWID who had regular engagement in harm reduction behaviors (e.g., avoiding syringe sharing) perceived themselves to be at low risk of HIV. WWID unanimously perceived PrEP to be a beneficial HIV prevention tool. Potential adverse reactions with comorbid conditions, PrEP- and HIV-related stigma, location of care, and the psychological costs of initiating new relationships with PrEP care providers influenced PrEP acceptability.
Felsher et al. (29)	Social network survey	United States	WWID (N = 40)	HIV risk perception PrEP usage PrEP communication	47.5% of WWID perceived themselves as at high risk of HIV. Nearly all (97.5%) accepted a PrEP prescription. 83.2% of WWID were willing to share PrEP information. Participants were more likely to share PrEP information with individuals who were homeless (UOR 3.3; 95% CI 1.5–7.6), an injecting drug user (UOR 2.3; 95% CI 1.1–4.7), engaged in transactional sex (UOR 4.5; 95% CI 1.6–12.5) or had a perceived high-risk of HIV (UOR 1.1; 95% CI 1.1–1.2).
Felsher et al. (30)	Interviews	United States	WWID (N = 23)	PrEP adherence	Only 5.6% of WWID were adherent to PrEP. PrEP ranked relatively low compared to other basic needs. Women's perceived need for PrEP fluctuated with their drug use and HIV risk perception. Women who did not have stable housing often described how the lack of safe pill storage leads to pills being lost or stolen.
Footer et al. (31)	Focus groups	United States	WWID (N = 16)	PrEP awareness PrEP knowledge	31% of WWID were aware of PrEP. Knowledge was "low" but not quantified. All WWID were interested in PrEP as an additional form of HIV protection. Women had concerns about convenience and ease of use, preferring less frequent delivery methods. Potential interactions with other medication regimens and access to medical providers were noted as concerns about PrEP use.

(Continued)

TABLE 2 (Continued)

References	Study design	Setting	Population (sample size)	PrEP variables	Findings
Galka et al. (32)	Cross-sectional survey	Malaysia	Transgender women (N = 361 total; n = 10 WWID)	PrEP awareness PrEP acceptability	In the bivariate analysis, IDU was significantly associated with lower willingness to use PrEP {OR −1.17 [95% CI (−1.85 to −0.48), p = 0.001]}. But in the multivariable analysis, the difference was not significant (p = 0.041).
International Network of People who Use Drugs (33)	Interviews and face-to-face consultations	Europe and Asia	PWID (N = 75 total; n = 23 WWID)	PrEP access, PrEP acceptability	Criminalization of drug use and stigma toward people who inject drugs negatively affect the accessibility of PrEP. Scale up of harm-reduction services, especially community-based services would be necessary for PrEP to be accessible to participants. Participants recognized the potential benefit of PrEP and emphasized its use in a larger package of comprehensive services. But participants generally preferred access to safe injection equipment than using a daily pill to prevent HIV infection.
International Network of People who Use Drugs (34)	Semi-structured interviews and focus groups discussions	Global	PWID (N = 54 total; n = 17 WWID)	PrEP knowledge, access to PrEP, PrEP, PrEP acceptability	Few participants expressed that they did not feel sufficiently informed on PrEP. Several participants noted issues with PrEP availability and highlighted the ethical issue of making individuals aware of PrEP without allowing them access to it, particularly for modes of PrEP relevant to women (e.g., vaginal rings). Participants were generally willing to use PrEP but underscored the necessity for it to be a part of a comprehensive package of harm reduction services. Several participants highlighted the issue of lack of basic harm reduction services, such as lack of safe injection equipment, which was more pressing than PrEP.
Jo et al. (35)	Cross-sectional survey	United States	PWID at a syringe service provider (N = 157; n = 36 WWID)	PrEP acceptability	There was no statistically significant difference in the odds of expressing interest in PrEP by gender. In the adjusted model, people with opioid-only use were significantly less likely to report interest in being linked to PrEP.
Kuo et al. (36)	Interview and questionnaire	United States	PWID (N = 304; n = 98 WWID)	PrEP acceptability	38.7% of WWID were very likely to use PrEP and 27.5% were somewhat/not likely to use PrEP. Gender was not associated with willingness to use PrEP.
Martin et al. (37)	Randomized, double-blind, placebo- controlled, endpoint-driven study	Thailand	PWID (N = 2,413; n = 489 WWID)	PrEP adherence	47.7% of women had poor (<95% adherence). In the multivariable analysis, men were more likely to report poor adherence compared to women (p = 0.006).
Martin et al. (38)	Observational, cohort study	Thailand	Current or previous PWID (N = 1315; n = 274 WWID)	PrEP usage PrEP adherence Retention in PrEP care	Fifty-eight percentage of women chose to take PrEP. In the bivariate analysis, there was no significant difference in uptake by gender [OR 1.2 (95% CI 0.9–1.5)]. Sixty-nine percentage of WWID returned for at least one clinic visit, and gender was not significantly associated with attendance.

(Continued)

TABLE 2 (Continued)

References	Study design	Setting	Population (sample size)	PrEP variables	Findings
McFarland et al. (39)	Cross-sectional survey, data from National HIV Behavioral Surveillance (NHBS)	United States	PWID ($N = 397$ total, number of WWID not specified)	PrEP awareness PrEP knowledge PrEP usage PrEP communication	63.4% of WWID were aware of PrEP and women were more likely than men to be aware. 38.9% of WWID knew PrEP can prevent HIV transmission from sharing injection equipment, and there were no significant differences by gender. Only 13.6% of WWID discussed taking PrEP with their healthcare provider in last year. Three percentage of WWID used PrEP in last year. After excluding MSM, women were more likely to have used PrEP than men (3.7% of women vs. 0% of non-MSM men, $p = 0.007$).
Metz et al. (40)	Questionnaire	United States	Individuals with opioid use disorder ($N = 138$ total; $n = 24$ females)	PrEP awareness PrEP acceptability	Thirty percentage of the sample had heard of PrEP, with no significant differences between genders. PrEP acceptance was 59%, with no significant differences between genders. There were no gender differences in HIV risk behaviors, transmission and prevention knowledge or preferences.
Peitzmeier et al. (41)	Cross-sectional survey	United States	Female sex workers at a mobile health service ($N = 60$; $n = 54$ WWID)	PrEP awareness PrEP acceptability	Thirty-three percentage of WWID were aware of PrEP and 63% accepted PrEP. IDU was not significantly associated with increased interest in PrEP. Women that experienced physical or sexual violence from clients and women under 35 had higher PrEP acceptance.
Qin et al. (42)	Semi-structured interviews	United States	Women with substance use disorders ($N = 20$)	PrEP awareness	Thirty-five percentage of WWID were aware of PrEP. Motivations to engage in PrEP care were problematized by women's basic needs, lack of perceived risk of HIV, and anticipated stigma.
Roth et al. (43)	Cross-sectional survey	United States	PWID attending a syringe exchange program ($N = 138$ total; $n = 65$ WWID)	PrEP acceptability Access to PrEP	PrEP acceptance was higher in women compared to men (88.9 vs. 71.0%; $p < 0.02$). Few participants had accessed health services for HIV risk assessment that could lead to discussion about PrEP [at primary care physicians (43.8%), STI clinics (9.4%), or annual women's wellness examinations (15.4%)]. Most participants (86%) reported that they would prefer to access future screening at the syringe exchange program vs. traditional STI clinics.
Roth et al. (44)	Cross-sectional survey, data from National HIV Behavioral Surveillance (NHBS)	United States	PWID attending a syringe exchange program ($N = 612$; $n = 155$ WWID)	PrEP awareness	35.5% WWID were aware of PrEP. Factors associated with PrEP awareness were having at least some college education (aOR 2.13, 95% CI 1.03, 4.43), sharing paraphernalia (aOR 2.37, 95% CI 1.23, 4.56), obtaining syringes/needles primarily from a syringe exchange program (aOR 2.28, 95% CI 1.35, 3.87), STI testing (aOR 1.71, 95% CI 1.01, 2.89) and drug treatment (aOR 2.81, 95% CI 1.62, 4.87). Individuals that accessed prevention and health services had increased odds of being aware of PrEP.

(Continued)

TABLE 2 (Continued)

References	Study design	Setting	Population (sample size)	PrEP variables	Findings
Roth et al. (45)	Cross-sectional survey	United States	WWID attending a syringe service program ($N = 136$)	PrEP awareness PrEP usage PrEP adherence Retention in PrEP care	52.6% of participants were aware of PrEP before enrolling in the study. 63/95 initiated PrEP and uptake was associated with greater baseline frequency of SSP access (aOR = 1.85; 95% CI: 1.24–2.77), inconsistent condom use (aOR = 3.38; 95% CI: 1.07–10.7), and experiencing sexual assault (aOR = 5.89; 95% CI: 1.02, 33.9). 44.2% were retained in care at week 24, and retention was higher among women who reported more frequent baseline SSP access (aOR = 1.46; 95% CI: 1.04–2.24). Half the sample reported full adherence, but this was not confirmed by urinalysis.
Schneider et al. (46)	Survey	United States	PWID ($N = 407$; $n = 159$)	PrEP awareness PrEP acceptability PrEP usage	32.6% of WWID were aware of PrEP, 58.3% accepted PrEP, and 3.7% had used PrEP before. Acceptance per form of administration females: oral (62%), arm injection (60.1%), abdomen injection (21.6%), IV infusion (14.9%), under skin implant (26.4%) vaginal gels (26.6%) or vaginal rings (28.6%).
Sherman et al. (47)	Cross-sectional survey	United States	PWID ($N = 265$; $n = 85$ WWID)	PrEP acceptability	33.5% of WWID accepted PrEP, with no significant differences between men and women. PrEP interest was associated with being eligible for PrEP (aOR = 2.46; 95% CI: 1.34, 4.50) and the number of medical diagnoses (aOR = 1.16; 95% CI: 1.01, 1.33).
Stein et al. (48)	Cross-sectional survey	United States	Opiate users seeking opioid detoxification ($N = 351$; $n =$ 105 WWID)	PrEP acceptability	50.5% of WWID were willing to use PrEP, and there were no differences in acceptability by gender. People who believed they were at risk for HIV had higher rates of acceptability.
Tran et al. (49)	Cross-sectional survey	United States	WWID ($N = 95$)	PrEP usage	Eighty-eight percentage of WWID intended to initiate PrEP. Overall, most WWID held positive attitudes about PrEP. Most (≥70%) had no concerns about PrEP's efficacy, and no/little concern about side-effects. There was no difference in PrEP intention between WWID who accepted PrEP and those who did not.
Walters et al. (50)	Cross-sectional survey, data from National HIV Behavioral Surveillance (NHBS)	United States	WWID ($N = 118$)	PrEP awareness	Thirty-one percentage of WWID were aware of PrEP. In multivariable logistic regression, increased PrEP awareness was associated with reported transactional sex (aOR 3.32, 95% CI 1.22–9.00) and having had a conversation about HIV prevention at a syringe exchange program (aOR 7.61, 95% CI 2.65–21.84).
Walters et al. (51)	Cross-sectional survey, data from National HIV Behavioral Surveillance (NHBS)	United States	Groups at high risk of HIV ($N = 2,483$; $n = 196$ WWID)	PrEP awareness Access to PrEP	Eighty percentage of WWID were aware of PrEP in Long Island and 12% in New York City. Among high-risk groups on New York City and Long Island, only 25 and 32% of WWID, respectively, had access to HIV prevention professionals.

TABLE 3 Risk of bias assessment using mixed methods appraisal tool.

Qualitative studies

References	Is the qualitative approach appropriate to answer the research question?	Are the qualitative data collection methods adequate to address the research question?	Are the findings adequately derived from the data?	Is the interpretation of results sufficiently substantiated by data?	Is there coherence between qualitative data sources, collection, analysis and interpretation?	Final score
Bass et al. (22)	1	1	0	0	0	2
Bazzi et al. (23)	1	1	0	1	1	4
Felsher et al. (27)	1	1	1	1	1	5
Felsher et al. (28)	1	1	1	1	1	5
Felsher et al. (30)	1	1	1	1	1	5
Footer et al. (31)	1	1	1	1	1	5
International Network of People who Use Drugs (33)	1	0	1	1	1	4
International Network of People who Use Drugs (34)	1	1	1	1	1	5
Qin et al. (42)	1	1	1	1	1	5

Quantitative randomized controlled trials

References	Is randomization appropriately performed?	Are the groups comparable at baseline?	Are there complete outcome data?	Are outcome assessors blinded to the intervention provided?	Did the participants adhere to the assigned intervention?	Final score
Martin et al. (37)	0	0	1	0	0	1

Quantitative non-randomized controlled trials

References	Is randomization appropriately performed?	Are the groups comparable at baseline?	Are there complete outcome data?	Are outcome assessors blinded to the intervention provided?	Did the participants adhere to the assigned intervention?	Final score
Felsher et al. (26)	1	1	1	0	1	4

Quantitative descriptive studies

References	Is the sampling strategy relevant to address the research question?	Is the sample representative of the target population?	Are the measurements appropriate?	Is the risk of non-response bias low?	Is the statistical analysis appropriate to answer the research question?	Final score
Alarid et al. (21)	1	0	1	1	1	4
Belludi et al. (24)	1	1	0	1	1	4

(Continued)

TABLE 3 (Continued)

Quantitative non-randomized controlled trials

References	Is randomization appropriately performed?	Are the groups comparable at baseline?	Are there complete outcome data?	Are outcome assessors blinded to the intervention provided?	Did the participants adhere to the assigned intervention?	Final score
Corcorran (52)	1	1	1	0	1	4
Escudero et al. (25)	1	1	1	0	1	4
Galka et al. (32)	0	1	1	0	1	3
Jo et al. (35)	1	1	1	1	1	5
Kuo et al. (36)	1	1	1	1	1	5
Martin et al. (38)	1	1	1	1	1	5
McFarland et al. (39)	1	1	1	0	1	4
Metz et al. (40)	1	1	1	0	1	4
Peitzmeier et al. (41)	1	1	1	0	1	4
Roth et al. (43)	1	1	1	0	1	4
Roth et al. (44)	1	1	1	1	1	5
Roth et al. (45)	1	1	1	1	1	5
Schneider et al. (46)	1	1	1	0	1	4
Sherman et al. (47)	1	1	1	0	1	4
Stein et al. (48)	1	1	1	0	1	4
Tran et al. (49)	1	1	1	0	1	4
Walters et al. (50)	1	1	1	0	1	4
Walters et al. (51)	1	1	1	0	1	4

9% of WWID reported a lack of self-perceived HIV risk as the reason for their unwillingness.

PrEP acceptability

Data on PrEP acceptability among WWID were reported in 16 studies (22–26, 32–36, 40, 41, 43, 46, 48, 52). Results varied widely between studies (range: 23–100% acceptability). In the studies conducted among members of INPUD, PrEP was only acceptable if provided in a comprehensive package of harm reduction services as participants prioritized safe injection equipment over PrEP for HIV prevention.

In seven studies conducted among PWID in India (24) and the United States (35, 36, 40, 47, 48, 52), gender was not significantly associated with PrEP acceptability. However, in a study among PWID in Canada, WWID were more willing to use PrEP compared to men (OR 1.52, $p = 0.028$) (25). Similarly, in a study among individuals attending syringe exchange programs in New Jersey, WWID were more willing to use PrEP than their male counterparts (88.9 vs. 71.0%; $p < 0.02$) (43). Beyond gender, factors which influenced the acceptability of PrEP included concerns regarding side-effects (25, 33, 34, 43, 55), and access to health professionals (22, 34, 43). Participants who found PrEP more acceptable were those that engaged in sex work (25, 46) or transactional sex (43), had experienced sexual violence (41), had multiple recent sexual partners (25, 43), had other medical conditions (47), shared injection equipment (41, 46, 47), believed they were at high risk of HIV (48), and were of younger age (25, 41).

Results on the impact of injecting drug use on acceptability were mixed. In one study that examined PrEP acceptability among trans-women in Malaysia, injecting drug use was negatively associated with acceptability ($B = -1.17$, $p = 0.001$) (32). Interestingly, among female sex workers in Baltimore (USA), injecting drug use was not associated with acceptability of PrEP (41).

One study by Schneider et al. examined the acceptability of different forms of PrEP use and demonstrated higher acceptance of oral (62%) and arm-injection (60%) administration compared to implants (26%), vaginal gels (26%), vaginal rings (29%), abdomen injection (22%) and intravenous infusion (15%) among WWID (46).

PrEP usage

Data on the number of WWID that used or intended to use PrEP was collected in seven studies (22, 28, 38, 39, 46, 49, 54). In one study in Philadelphia intention to use PrEP was 88% among WWID. In this study, intention to use PrEP was associated with having fewer concerns discussing sexual history and drug use with their health provider ($p < 0.01$) (49).

Regarding usage of PrEP among PWID, there was no clear difference of PrEP use by gender across studies. Martin et al. found no significant difference in PrEP uptake by gender (OR 1.2, $p = 0.16$) in Thailand (38). However, McFarland et al. found that in San Francisco women were more likely to have used PrEP than heterosexual men (3.7% of women vs. 0% of heterosexual men, $p = 0.007$) (39).

Barriers to PrEP use among WWID included access to a doctor, homelessness, and potential theft of medication (22). Among WWID at a syringe service program in Philadelphia, factors that increased the odds of initiating PrEP included reporting sexual assault ($p = 0.003$), higher income ($p = 0.06$), frequency of syringe service programs attendance ($p = 0.001$), and inconsistent condom use ($p = 0.03$) (28).

PrEP adherence

Data on adherence to PrEP among WWID were collected in four studies. Across studies, adherence ranged from 5.6 to 52.3% (29, 37, 38, 45). In an analysis of 95 WWID in a PrEP demonstration project in Philadelphia, approximately half reported taking all PrEP medication at follow-ups, though prevention-effective levels were detected in only one participant urinalysis (45). Barriers to adherence included unstable housing and lack of storage for their medication. Adherence was also challenged by women's entrance to institutions that did not provide PrEP, such as some drug treatment and correctional facilities. Additionally, adherence depended on women's levels of drug-use and perceived HIV-risk at the time. When WWID felt at risk for HIV, they were more motivated to take PrEP. However, when WWID perceived they were at low risk of HIV (e.g., when abstaining from drug use) they discontinued use (29).

In the Bangkok Tenovir Study, which analyzed PrEP adherence in PWID by various demographic factors, women were more adherent compared to men ($p = 0.006$) (37). In the open-label extension of the Bangkok Tenovir Study, only 14% of WWID that returned for at least one follow-up visit had >90% adherence to PrEP. In the multivariable analysis, men were more likely to be adherent compared to WWID (OR = 1.9; 95% CI 1.0–3.6) (38).

Retention in PrEP care

Retention in PrEP care was assessed by the open-label extension of the Bangkok Tenovir Study (38) and the PrEP demonstration study in Philadelphia (45). The majority (69%) of Bangkok women returned for at least one follow-up clinic visit, but gender was not significantly associated with their likelihood of returning for a follow-up visit (38). In the PrEP demonstration study, retention fell in follow-ups at weeks 1 (93.7%), 12 (61.2%), and 24 (44.2%) among women in Philadelphia, and was most associated with access to syringe service programs (45).

PrEP communication

One relevant PrEP variable that was outside of the PrEP continuum of care but was mentioned in five studies was PrEP communication (27, 39, 40, 42, 54). In one study that considered the willingness to share information on PrEP among WWID, participants were willing to share information with 83% of people in their network (54). They were more likely to share information if the individual was homeless (UOR 3.3; 95% CI 1.5–7.6), an injecting drug user (UOR 2.3; 95% CI 1.1–4.7), engaged in transactional sex (UOR 4.5; 95% CI 1.6–12.5) or had a perceived high-risk of HIV (UOR 1.1; 95% CI 1.1–1.2). The study did not compare rates of sharing information between men and women. In another study examining PrEP communication among WWID, conversations having to do with PrEP occurred in 30/57 various relationships examined (27). In this study, individuals were motivated to have conversations of PrEP based on perceived HIV risk, gender similarity, to increase emotional connectedness and potential support from a peer, and when a negative outcome was perceived from not disclosing PrEP use.

Two studies considered PrEP communication in terms of conversations with the healthcare provider (39, 42). One study found no difference in gender in discussions of PrEP with healthcare provider (39). However, in another study examining drug treatment contexts and women's decision-making about PrEP a healthcare provider indicated that she never considered raising PrEP with heterosexual women clients (42).

Discussion

This review of the PrEP continuum of care among WWID included 3,216 WWID across 32 studies. To our knowledge, this is the first systematic review stratified across the PrEP continuum of care to focus solely on this population, a highly vulnerable and marginalized population who are often overlooked in HIV research and prevention (5). WWID face several gender-specific challenges of drug use. Generally, WWID fall on the bottom of the hierarchy among PWID. This means that they may be forced to share needles or engage in risky income-generating behaviors to sustain drug use, such as sex work (56). This increases their risk for a variety of health harms, including higher mortality rates, levels of risky injecting, levels of risky sexual behavior, prevalence of

blood-borne viruses, and psychological harm compared to men. WWID are also more likely to have a sexual partner who also injects drugs and be dependent on them for drugs compared to men (57). Many women who use drugs in such relationships also experience physical and psychological violence, which may preclude them from accessing harm reduction services, such as initiating PrEP uptake (57, 58). Furthermore, gender-based social responsibilities, such as child rearing, may prevent women from accessing health and harm reduction services generally. Notably, the fear of having children being apprehended may prevent WWID from accessing health services, including harm reduction services (59). As such, it is crucial to understand the gendered dynamics of injection drug use and harm reduction, an in particular, the PrEP continuum of care.

Despite the great need, there is no data from the ECDC on PrEP among WWID. In fact, data from ECDC show that more than 90% of current PrEP users in European countries belong to the MSM community (60). There is a strong need to scale up PrEP to other marginalized communities, such as WWID, if we are to reach the Sustainable Development Goals, and even in high-income countries with large-scale implementation (e.g., France, Netherlands, the United Kingdom, and the US), it is important to ensure that efforts are made to guarantee that these communities are reached at a sufficient scale. This review considered PrEP awareness ($n = 14$), PrEP knowledge ($n = 3$), access to PrEP care ($n = 4$), HIV risk perception ($n = 4$), PrEP acceptability ($n = 16$), PrEP usage ($n = 7$), PrEP adherence ($n = 4$), and retention in PrEP care ($n = 1$) among WWID. We also considered a new PrEP variable, PrEP communication ($n = 5$), that is highly relevant for improving awareness, knowledge, and usage in this population.

This review found that awareness, knowledge, and usage of PrEP in WWID is generally low. Suboptimal awareness was also found among other high-risk populations for HIV including women who use drugs at large (19, 61), women who engage in sex work (19), as well as MSM (62). However, WWID who were aware about PrEP were interested in its use, as PrEP acceptability was relatively high in most studies investigating it. Furthermore, acceptability was associated with HIV risk perception and engagement in high-risk sexual or injection practices. WWID are generally aware of and interested in lowering their risks of contracting HIV. However, as our review demonstrates, several structural issues challenge the ability of WWID to do so, including homelessness, sexual violence, unpredictability of drug use, and access to the healthcare system. A qualitative study by Felsher et al. (29) demonstrated that for some WWID, although there is a desire to use PrEP, it simply is overshadowed by other basic needs, such as access to food and shelter, generating an income and access to drugs. Whereas, one study performed in Kenya and South Africa showed drug use to be a PrEP-disrupting behavior (63), Felsher et al. showed that during periods where the women are not engaged in drug use, they are not as inclined to use PrEP as they feel their risk is lower (29). Risk of HIV transmission through non-injection routes (e.g., condomless sex) may also increase during periods of drug use (64).

The gap between PrEP acceptance and usage underscores the need for better provision of PrEP to WWID. WWID should be specified as a key population in PrEP technical guidelines, which is currently not the case in most countries, including in high-income countries (65). Further challenging PrEP awareness and usage in this population is the lack of engagement of WWID with the traditional healthcare system, as several studies in this review noted. This is unsurprising given the stigma, social inequality, and marginalization experienced by WWID, which leads to lack of healthcare access (66). As such, solutions to introduce PrEP at women's health clinics or other mainstream health services, as suggested by other research on women who use drugs (19), may fail to reach this population, as WWID indicated that they preferred to access care elsewhere.

Given these results, integrating PrEP services with low-threshold harm reduction and drug treatment services for PWID may be a more practical solution to engage this population in comparison to mainstream health services. In fact, members of INPUD highlighted that PrEP should only be administered as part of a comprehensive package of harm reduction (33, 34). Our findings align with previous research for engaging PWID in care (67–70). The studies in our review revealed that women that were more engaged in harm reduction services, such as syringe exchange programs, were more likely to be aware of and use PrEP. Furthermore, these services should have a holistic and gender-based approach to meet the unique needs and gender-based vulnerabilities of WWID, such as housing insecurity and sexual violence. In particular, integrating additional sexual health services in these settings could improve engagement in care for this population. In fact, a review of a pilot program which integrated reproductive healthcare within a needle and syringe program indicated that WWID were very satisfied with the services provided (71).

In addition to highlighting the need for integrating services, our results on PrEP communication underscore the role of peers in spreading knowledge and awareness about PrEP among WWID. Studies in this review indicated that WWID were very likely to share information on PrEP to other WWID, especially if they were deemed to be at high risk of HIV. This is in line with research on services for PWID which acknowledge the importance of engaging peers (68, 72, 73). For example, in Indonesia peer support was shown to help with HIV treatment initiation and adherence to HIV care among PWID. Furthermore, PWID were able to regain trust in the healthcare system and stay motivated to retain in HIV care (73). Similarly, in Senegal, researchers indicated that peer-led outreach among PWID could serve as an important part of harm reduction programs (72),

Given their shared lived experiences, and potentially shared social networks, peers can help provide emotional and social support needed to engage with and maintain care. They can also diffuse harm reduction information through their social networks. However, rather than just communicating behavior change, peers can de-stigmatize drug use and encourage meaningful involvement of PWID in interventions aimed at improving their wellbeing (72). As such, harm reduction programs should involve peers provided Through a shared lived experience with adequate structural support to help generate trust and improve engagement in health and harm reduction services.

Our review highlighted several gaps in the evidence base. Most importantly, many studies ($n = 21$) were excluded because they did not stratify results by gender, which challenges understanding the needs of WWID, who may have different experiences compared to their male counterparts. It is crucial that future research on people who inject drugs disaggregate between men and women to improve service provision for both men and women. Alongside this, research and recruitment methods should be tailored to the needs of WWID to encourage their participation (e.g., female researchers in community-based settings). There was also a lack of geographical variation across studies, with most studies taking place in major metropolitan cities in the United States and an absence of studies from South America. Additionally, there was only one study that fitted our review criteria that examined transgender women. However, there is a great need for more research on trans WWID given that trans-women are at higher risk of contracting HIV (2). Lastly, very few studies examined PrEP adherence and retention among WWID, which are needed to improve engagement in care.

Limitations

Several limitations exist in this systematic review. First, the number of studies and lack of geographic diversity limit the generalizability of our findings. This may have been as a result of our language restriction. Had we extended the inclusion criteria to other languages, the number of studies included in this review may have increased. The lack of geographic diversity meant we could not interpret differences in the PrEP continuum of care across different countries, or indeed, regions. Another intrinsic limitation of this review was the small proportion of studies on the PrEP continuum of care which included WWID and provided gender disaggregated data. In addition, when included, WWID were often only a small proportion of the study sample sizes. This also created difficulties in comparing results across studies. Therefore, this review and the findings within may change as more studies and reviews on the topic emerge over time.

Conclusion

HIV research addressing the PrEP continuum of care under-recognizes the unique needs of and challenges faced by WWID, and especially transgender women. Steps of the care continuum, such as PrEP awareness and knowledge, may be improved by engaging WWID where they access health and/or social services, including in community and peer-based interventions. To improve PrEP usage and engagement in care among WWID, technical guidance should specify WWID as a key population for PrEP interventions. Furthermore, PrEP services could be integrated within gender-responsive harm reduction and drug treatment services as well as correctional services. Further studies are needed on PrEP retention and adherence among WWID, including in high-income countries where PrEP implementation has moved beyond demonstration projects to national programs.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author/s.

Author contributions

DG conceptualized this study. DG, TW, and JD scanned and assessed all potential articles for inclusion. DG drafted the manuscript with significant input from all other authors. All authors approved the final draft for submission.

Funding

The project that gave rise to these results received support from a fellowship from La Caixa Foundation (ID 100010434) awarded to DG. The fellowship code is LCF/BQ/DI20/11780008.

Acknowledgments

Authors acknowledge support to ISGlobal from the Spanish Ministry of Science, Innovation and Universities through the Centro de Excelencia Severo Ochoa 2019–2023 Programme, and from the Government of Catalonia through the CERCA Programme.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

References

1. United Nations Office on Drugs and Crime. *World Drug Report*. (2020). Available online at: https://wdr.unodc.org/wdr2020/index2020.html (accessed June 17, 2021).

2. UNAIDS. *Miles To Go Closing Gaps Breaking Barriers Righting Injustices*. (2018). Available online at: https://www.unaids.org/sites/default/files/media_asset/miles-to-go_en.pdf (accessed June 17, 2021).

3. Iversen J, Page K, Madden A, Maher L. HIV, HCV, and health-related harms among women who inject drugs: implications for prevention and treatment. *J Acquir Immune Defic Syndr*. (2015) 69(Suppl. 2):S176–81. doi: 10.1097/QAI.0000000000000659

4. Strathdee SA, West BS, Reed E, Moazan B, Azim T, Dolan K. Substance use and hiv among female sex workers and female prisoners: risk environments and implications for prevention, treatment, and policies. *J Acquir Immune Defic Syndr*. (2015) 69:S110. doi: 10.1097/QAI.0000000000000624

5. El-Bassel N, Strathdee SA. Women who use or inject drugs: an action agenda for women-specific, multilevel, and combination HIV prevention and research. *J Acquir Immune Defic Syndr*. (2015) 69:S182–90. doi: 10.1097/QAI.0000000000000628

6. Kerr T, Shannon K, Ti L, Strathdee S, Hayashi K, Nguyen P, et al. Sex work and HIV incidence among people who inject drugs. *AIDS*. (2016) 30:627. doi: 10.1097/QAD.0000000000000948

7. Meyers SA, Earnshaw VA, D'Ambrosio B, Courchesne N, Werb D, Smith LR. The intersection of gender and drug use-related stigma: a mixed methods systematic review and synthesis of the literature. *Drug Alcohol Depend*. (2021) 223:108706. doi: 10.1016/J.DRUGALCDEP.2021.108706

8. Medina-Perucha L, Scott J, Chapman S, Barnett J, Dack C, Family H. A qualitative study on intersectional stigma and sexual health among women on opioid substitution treatment in England: implications for research, policy and practice. *Soc Sci Med*. (2019) 222:315–22. doi: 10.1016/J.SOCSCIMED.2019.01.022

9. Azim T, Bontell I, Strathdee SA. Women, drugs and HIV. *Int J Drug Policy*. (2015) 26(Supple. 1):S16–21. doi: 10.1016/j.drugpo.2014.09.003

10. Braksmajer A, Senn TE, McMahon J. The potential of pre-exposure prophylaxis for women in violent relationships. *AIDS Patient Care STDS*. (2016) 30:274. doi: 10.1089/APC.2016.0098

11. Fonner VA, Dalglish SL, Kennedy CE, Baggaley R, O'reilly KR, Koechlin FM, et al. Effectiveness and safety of oral HIV preexposure prophylaxis for all populations. *AIDS*. (2016) 30:1973–83. doi: 10.1097/QAD.0000000000001145

12. Spinner CD, Boesecke C, Zink A, Jessen H, Stellbrink HJ, Rockstroh JK, Esser S. HIV pre-exposure prophylaxis (PrEP): a review of current knowledge of oral systemic HIV PrEP in humans. *Infection*. (2016) 44:151–8. doi: 10.1007/s15010-015-0850-2

13. Dolling DI, Desai M, McOwan A, Gilson R, Clarke A, Fisher M, et al. An analysis of baseline data from the PROUD study: An open-label randomised trial of pre-exposure prophylaxis. *Trials*. (2016) 17:1–11. doi: 10.1186/s13063-016-1286-4

14. Zablotska IB, Baeten JM, Phanuphak N, McCormack S, Ong J. Getting pre-exposure prophylaxis (PrEP) to the people: opportunities, challenges and examples of successful health service models of PrEP implementation. *Sex Health*. (2018) 15:481–4. doi: 10.1071/SH18182

15. World Health Organization. *Guideline on When to Start Antiretroviral Therapy and on Pre-Exposure Prophylaxis for HIV Guidelines*. (2015). Available online at: https://www.ncbi.nlm.nih.gov/books/NBK327115/ (accessed June 17, 2021).

16. Schaefer R, Schmidt H-MA, Ravasi G, Mozalevskis A, Rewari B.B, Lule F, et al. Adoption of guidelines on and use of oral pre-exposure prophylaxis: a global summary and forecasting study. *Lancet HIV*. (2021) 8:e502–10. doi: 10.1016/S2352-3018(21)00127-2

17. Nunn AS, Brinkley-Rubinstein L, Oldenburg CE, Mayer KH, Mimiaga M, Patel R, et al. Defining the HIV pre-exposure prophylaxis care continuum. *AIDS*. (2017) 31:731–4. doi: 10.1097/QAD.0000000000001385

18. Mistler CB, Copenhaver MM, Shrestha R. The pre-exposure prophylaxis (PrEP) care cascade in people who inject drugs: a systematic review. *AIDS Behav*. (2021) 25:1490–506. doi: 10.1007/s10461-020-02988-x

19. Glick JL, Russo R, Jivapong B, Rosman L, Pelaez D, Footer KH, et al. The PrEP care continuum among cisgender women who sell sex and/or use drugs globally: a systematic review. *AIDS Behav*. (2020) 24:1312–33. doi: 10.1007/s10461-019-02733-z

20. Hong QN, Fàbregues S, Bartlett G, Boardman F, Cargo M, Dagenais P, et al. The mixed methods appraisal tool (MMAT) version 2018 for information professionals and researchers. *Educ Inf*. (2018) 34:285–91. doi: 10.3233/EFI-180221

21. Alarid LF, Hahl JM. Seroconversion risk perception among jail populations: a call for gender-specific HIV prevention programming. *J Correct Heal care Off J Natl Comm Correct Heal Care*. (2014) 20:116–26. doi: 10.1177/1078345813518631

22. Bass S, Brajuha J, Kelly P, Coleman J. *Sometimes You Gotta Choose: An Indepth Qualitative Analysis on Perceptions of the Barriers and Facilitators to use and Adhere to PrEP in Women Who Inject Drugs*. Philadelphia: APHA's 2019 Annual Meeting and Expo (2019).

23. Bazzi AR, Biancarelli DL, Childs E, Drainoni ML, Edeza A, Salhaney P, et al. Limited knowledge and mixed interest in pre-exposure prophylaxis for hiv prevention among people who inject drugs. *AIDS Patient Care STDS*. (2018) 32:529–537. doi: 10.1089/apc.2018.0126

24. Belludi A, McFall AM, Solomon SS, Celentano DD, Mehta SH, Srikrishnan AK, et al. Awareness of and willingness to use pre-exposure prophylaxis (PrEP) among people who inject drugs and men who have sex with men in India: results from a multi-city cross-sectional survey. *PLoS ONE*. (2021) 16:e0247352. doi: 10.1371/journal.pone.0247352

25. Escudero DJ, Kerr T, Wood E, Nguyen P, Lurie MN, Sued O, et al. Acceptability of HIV pre-exposure prophylaxis (PREP) among people who inject drugs (PWID) in a Canadian setting. *AIDS Behav*. (2015) 19:752–7. doi: 10.1007/s10461-014-0867-z

26. Felsher M, Ziegler E, Smith LR, Sherman SG, Amico KR, Fox R, et al. An exploration of pre-exposure prophylaxis (PrEP) initiation among women who inject drugs. *Arch Sex Behav*. (2020) 49:2205–12. doi: 10.1007/s10508-020-01684-0

27. Felsher M, Koku E, Lankenau S, Brady K, Bellamy S, Roth AM. Motivations for PrEP-related interpersonal communication among women who inject drugs: a qualitative egocentric network study. *Qual Health Res*. (2020) 31:86–99. doi: 10.1177/1049732320952740

28. Felsher M, Bellamy S, Piecara B, Van Der Pol B, Laurano R, Roth AM. Applying the behavioral model for vulnerable populations to pre-exposure prophylaxis initiation among women who inject drugs. *AIDS Educ Prev*. (2020) 32:486–92. doi: 10.1521/aeap.2020.32.6.486

29. Felsher M, Ziegler E, Amico KR, Carrico A, Coleman J, Roth AM. "PrEP just isn't my priority": Adherence challenges among women who inject drugs participating in a pre-exposure prophylaxis (PrEP) demonstration project in Philadelphia. *Soc Sci Med*. (2021) 275:113809. doi: 10.1016/j.socscimed.2021.113809

30. Felsher M, Dutra K, Monseur B, Roth AM, Latkin C, Falade-Nwulia O. The influence of PrEP-related stigma and social support on PrEP-Use disclosure among women who inject drugs and social network members. *AIDS Behav*. (2021) 25:3922–3932. doi: 10.1007/s10461-021-03312-x

31. Footer KHA, Lim S, Rael CT, Greene GJ, Carballa-Diéguez A, Giguere R, et al. Exploring new and existing PrEP modalities among female sex workers and women who inject drugs in a U.S. city. *AIDS Care Psychol Soc Med Asp*. (2019) 31:1207–13. doi: 10.1080/09540121.2019.1587352

32. Galka JM, Wang M, Azwa I, Gibson B, Lim SH, Shrestha R, et al. Willingness to use pre-exposure prophylaxis (PrEP) for HIV prevention and PrEP implementation preferences among transgender women in Malaysia. *Transgender Heal*. (2020) 5:258–66. doi: 10.1089/trgh.2020.0003

33. International Network of People who Use Drugs. *Pre-Exposure Prophylaxis (PrEP) for People Who Inject Drugs: Community Voices on Pros, Cons, and Concerns*. London: International Network of People who Use Drugs (2016).

34. International Network of People who Use Drugs. *Key Populations' Values and Preferences for HIV, Hepatitis, and STI Services: A Qualitative Study*. London: International Network of People who Use Drugs (2021).

35. Jo Y, Bartholomew TS, Doblecki-Lewis S, Rodriguez A, Forrest DW, Tomita-Barber J, et al. Interest in linkage to PrEP among people who inject drugs accessing syringe services; Miami, Florida. *PLoS ONE.* (2020) 15:e0231424. doi: 10.1371/journal.pone.0231424

36. Kuo I, Olsen H, Patrick R, Phillips II G, Magnus M, Opoku J, et al. Willingness to use HIV pre-exposure prophylaxis among community-recruited, older people who inject drugs in Washington, DC. *Drug Alcohol Depend.* (2016) 164:8–13. doi: 10.1016/j.drugalcdep.2016.02.044

37. Martin M, Vanichseni S, Suntharasamai P, Sangkum U, Mock PA, Leethochawalit M, et al. The impact of adherence to preexposure prophylaxis on the risk of HIV infection among people who inject drugs. *Aids.* (2015) 29:819–24. doi: 10.1097/QAD.0000000000000613

38. Martin M, Vanichseni S, Suntharasamai P, Sangkum U, Mock PA, Chaipung B, et al. Factors associated with the uptake of and adherence to HIV pre-exposure prophylaxis in people who have injected drugs: an observational, open-label extension of the Bangkok Tenofovir study. *lancet HIV.* (2017) 4:e59–66. doi: 10.1016/S2352-3018(16)30207-7

39. McFarland W, Lin J, Santos G-MM, Arayasirikul S, Raymond HF, Wilson E. Low PrEP awareness and use among people who inject drugs, San Francisco, 2018. *AIDS Behav.* (2020) 24:1290–3. doi: 10.1007/s10461-019-02682-7

40. Metz VE, Sullivan MA, Jones JD, Evans E, Luba R, Vogelman J, et al. Racial differences in HIV and HCV risk behaviors, transmission, and prevention knowledge among non-treatment-seeking individuals with opioid use disorder. *J Psychoactive Drugs.* (2017) 49:59–68. doi: 10.1080/02791072.2016.1259518

41. Peitzmeier SM, Tomko C, Wingo E, Sawyer A, Sherman S, Glass N, et al. Acceptability of pre-exposure prophylaxis and vaginal rings for HIV prevention among female sex workers in Baltimore, MD. *AIDS Care Psychol Soc Med Asp.* (2017) 29:1453–7. doi: 10.1080/09540121.2017.1300628.Acceptability

42. Qin Y, Price C, Rutledge R, Puglisi L, Madden LM, Meyer JP. Women's decision-making about PrEP for HIV prevention in drug treatment contexts. *J Int Assoc Provid AIDS Care.* (2020) 19:1–11. doi: 10.1177/2325958219900091

43. Roth AM, Aumaier BL, Felsher MA, Welles SL, Martinez-Donate AP, Chavis M, et al. An exploration of factors impacting preexposure prophylaxis eligibility and access among syringe exchange users. *Sex Transm Dis.* (2018) 45:217–21. doi: 10.1097/OLQ.0000000000000728

44. Roth A, Tran N, Piecara B, Welles S, Shinefeld J, Brady K. Factors associated with awareness of pre-exposure prophylaxis for hiv among persons who inject drugs in philadelphia: national hiv behavioral surveillance, 2015. *AIDS Behav.* (2019) 23:1833–40. doi: 10.1007/s10461-018-2293-0

45. Roth AM, Tran NK, Felsher M, Gadegbeku AB, Piecara B, Fox R, et al. Integrating HIV preexposure prophylaxis with community-based syringe services for women who inject drugs: results from the project SHE demonstration study. *J Acquir Immune Defic Syndr.* (2021) 86:e61–70. doi: 10.1097/QAI.0000000000002558

46. Schneider KE, White RH, O'Rourke A, Kilkenny ME, Perdue M, Sherman SG, et al. Awareness of and interest in oral pre-exposure prophylaxis (PrEP) for HIV prevention and interest in hypothetical forms of PrEP among people who inject drugs in rural West Virginia. *AIDS Care.* (2021) 33:721–8. doi: 10.1080/09540121.2020.1822506

47. Sherman SG, Schneider KE, Nyeong Park J, Allen ST, Hunt D, Chaulk CP, et al. PrEP awareness, eligibility, and interest among people who inject drugs in Baltimore, Maryland. *Drug Alcohol Depend.* (2019) 195:148–55. doi: 10.1016/J.DRUGALCDEP.2018.08.014

48. Stein M, Thurmond P, Bailey G. Willingness to use HIV pre-exposure prophylaxis among opiate users. *AIDS Behav.* (2014) 18:1694–700. doi: 10.1007/s10461-014-0778-z

49. Tran NK, Felsher M, Pol B Van Der, Bellamy SL, McKnight J, Roth AM. Intention to initiate and uptake of PrEP among women who injects drugs in a demonstration project: an application of the theory of planned behavior. *AIDS Care.* (2021) 33:746–53. doi: 10.1080/09540121.2021.1874267

50. Walters SM, Reilly KH, Neaigus A, Braunstein S. Awareness of pre-exposure prophylaxis (PrEP) among women who inject drugs in NYC: the importance of networks and syringe exchange programs for HIV prevention. *Harm Reduct J.* (2017) 14:40. doi: 10.1186/s12954-017-0166-x

51. Walters SM, Rivera A V, Starbuck L, Reilly KH, Boldon N, Anderson BJ, et al. Differences in awareness of pre-exposure prophylaxis and post-exposure prophylaxis among groups at-risk for HIV in New York State: New York City and Long Island, NY, 2011-2013. *J Acquir Immune Defic Syndr.* (2017) 75(Suppl. 3):S383–91. doi: 10.1097/QAI.0000000000001415

52. Corcorran MA, Tsui JI, Scott JD, Dombrowski JC, Glick SN. Age and gender-specific hepatitis C continuum of care and predictors of direct acting antiviral treatment among persons who inject drugs in Seattle, Washington. *Drug Alcohol Depend.* (2022) 220:108525. doilink[10.1016/j.drugalcdep.2021.108525]10.1016/j.drugalcdep.2021.108525

53. Biello KB, Bazzi AR, Mimiaga MJ, Biancarelli DL, Edeza A, Salhaney P, et al. Perspectives on HIV pre-exposure prophylaxis (PrEP) utilization and related intervention needs among people who inject drugs. *Harm Reduct J.* (2018) 15:1–12. doi: 10.1186/s12954-018-0263-5

54. Felsher M, Koku E, Bellamy SL, Mulawa MI, Roth AM. Predictors of willingness to diffuse PrEP information within ego-centric networks of women who inject drugs. *AIDS Behav.* (2021) 25:1856–63. doi: 10.1007/s10461-020-03115-6

55. Bazzi AR, Yotebieng KA, Agot K, Rota G, Syvertsen JL. Perspectives on biomedical HIV prevention options among women who inject drugs in Kenya. *AIDS Care Psychol Soc Med Asp.* (2018) 30:343–6. doi: 10.1080/09540121.2017.1363369

56. International AIDS Society. *Women Who Inject Drugs: Overlooked, yet Visible.* (2019). Available online at: https://www.iasociety.org/Web/WebContent/File/2019__IAS__Brief__Women_who_inject_drugs.pdf (accessed December 3, 2020).

57. Roberts A, Mathers B, Degenhardt L. *Women Who Inject Drugs: A Review of Their Risks, Experiences and Needs.* (2010). Available online at: http://www.idurefgroup.unsw.edu.au (accessed December 3, 2020).

58. Valencia J, Alvaro-Meca A, Troya J, Gutiérrez J, Ramón C, Rodríguez A, et al. Gender-based vulnerability in women who inject drugs in a harm reduction setting. *PLoS ONE.* (2020) 15:e0230886. doi: 10.1371/journal.pone.0230886

59. Stone R. Pregnant women and substance use: fear, stigma, and barriers to care. *Heal Justice.* (2015) 3:2. doi: 10.1186/s40352-015-0015-5

60. European Centers for Disease Control. *Pre-Exposure Prophylaxis for HIV Prevention in Europe and Central Asia. Monitoring Implementation of the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia – 2018/19 Progress Report.* (2019). Available online at: http://ecdc.europa.eu/en/pages/legalnotice.aspx (accessed January 18, 2022).

61. Zhang C, McMahon J, Simmons J, Brown L, Nash R, Liu Y. Suboptimal HIV pre-exposure prophylaxis awareness and willingness to use among women who use drugs in the United States: a systematic review and meta-analysis. *AIDS Behav.* (2019) 23:2641. doi: 10.1007/S10461-019-02573-X

62. Yi S, Tuot S, Mwai GW, Chhim K, Pal K, Igbinedion E, et al. Awareness and willingness to use HIV pre-exposure prophylaxis among men who have sex with men in low- and middle-income countries: a systematic review and meta-analysis. *J Int AIDS Soc.* (2017) 20:21580. doi: 10.7448/IAS.20.1.21580

63. Namey E, Agot K, Ahmed K, Odhiambo J, Skhosana J, Guest G, et al. When and why women might suspend PrEP use according to perceived seasons of risk: implications for PrEP-specific risk-reduction counselling. *Cult Heal Sex.* (2016) 18:1081–91. doi: 10.1080/13691058.2016.1164899

64. Elsesser S, Oldenburg C, Biello K, Mimiaga MJ, Safren SA, Egan JE, et al. Seasons of risk: anticipated behavior on vacation and interest in episodic antiretroviral pre-exposure prophylaxis (PrEP) among a large national sample of U.S. Men who have sex with Men (MSM). *AIDS Behav.* (2016) 20:1400–7. doi: 10.1007/S10461-015-1238-0

65. European Centre for Disease Prevention and Control. *HIV Pre-Exposure Prophylaxis in the EU/EEA and the UK: Implementation, Standards and Monitoring Operational Guidance.* Solna: The European Centre for Disease Prevention and Control (2019).

66. Paquette CE, Syvertsen JL, Pollini RA. Stigma at every turn: health services experiences among people who inject drugs. *Int J Drug Policy.* (2018) 57:104. doi: 10.1016/J.DRUGPO.2018.04.004

67. Pinto RM, Berringer KR, Melendez R, Mmeje O. Improving PrEP implementation through multilevel interventions: a synthesis of the literature. *AIDS Behav.* (2018) 22:3681–91. doi: 10.1007/s10461-018-2184-4

68. Smith M, Elliott L, Hutchinson S, Metcalfe R, Flowers P, McAuley A. Perspectives on pre-exposure prophylaxis for people who inject drugs in the context of an hiv outbreak: a qualitative study. *Int J Drug Policy.* (2021) 88:103033. doi: 10.1016/J.DRUGPO.2020.103033

69. Coleman RL, McLean S. Commentary: the value of PrEP for people who inject drugs. *J Int AIDS Soc.* (2016) 19(7(Suppl 6)):21112. doi: 10.7448/IAS.19.7.21112

70. Alistar SS, Owens DK, Brandeau ML. Effectiveness and cost effectiveness of oral pre-exposure prophylaxis in a portfolio of prevention programs for injection drug users in mixed HIV epidemics. *PLoS ONE*. (2014) 9:e86584. doi: 10.1371/JOURNAL.PONE.0086584

71. Owens L, Gilmore K, Terplan M, Prager S, Micks E. Providing reproductive health services for women who inject drugs: a pilot program. *Harm Reduct J. 2020 171*. (2020) 17:1–11. doi: 10.1186/S12954-020-00395-Y

72. Stengel CM, Mane F, Guise A, Pouye M, Sigrist M, Rhodes T. "They accept me, because I was one of them": formative qualitative research supporting the feasibility of peer-led outreach for people who use drugs in Dakar, Senegal. *Harm Reduct J*. (2018) 15:9. doi: 10.1186/s12954-018-0214-1

73. Iryawan AR, Stoicescu C, Sjahrial F, Nio K, Dominich A. The impact of peer support on testing, linkage to and engagement in HIV care for people who inject drugs in Indonesia: qualitative perspectives from a community-led study. *Harm Reduct J*. (2022) 19:1–13. doi: 10.1186/S12954-022-00595-8/TABLES/1

frontiers | Frontiers in Psychiatry

TYPE Original Research
PUBLISHED 30 August 2022
DOI 10.3389/fpsyt.2022.941384

OPEN ACCESS

EDITED BY
Lucy Webb,
Manchester Metropolitan University,
United Kingdom

REVIEWED BY
Ann Pederson,
B.C. Women's Hospital and Health Centre, Canada
Nancy Poole,
British Columbia Centre of Excellence for Women's Health, Canada

*CORRESPONDENCE
Julie Schamp
Julie.schamp@hogent.be

SPECIALTY SECTION
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

RECEIVED 11 May 2022
ACCEPTED 29 July 2022
PUBLISHED 30 August 2022

CITATION
Schamp J, Vanderplasschen W and Meulewaeter F (2022) Treatment providers' perspectives on a gender-responsive approach in alcohol and drug treatment for women in Belgium.
Front. Psychiatry 13:941384.
doi: 10.3389/fpsyt.2022.941384

Treatment providers' perspectives on a gender-responsive approach in alcohol and drug treatment for women in Belgium

Julie Schamp[1]*, Wouter Vanderplasschen[2] and Florien Meulewaeter[2]

[1]Department of Social Educational Care Work, University of Applied Sciences and Arts, Ghent, Belgium, [2]Department of Special Needs Education, Faculty of Psychology and Educational Sciences, Ghent University, Ghent, Belgium

Background: Gender inequity is a pervasive challenge to health equity on a global scale, and research shows the impact of sex and gender on substance use regarding for example epidemiology, treatment needs, treatment admission and treatment outcomes. The gender-transformative approach to action and health indicates that health interventions may maintain, exacerbate or reduce gender-related health inequalities, depending on the degree and quality of gender-responsiveness within the programme or policy. However, research shows a lack of gender-responsive initiatives in the alcohol and drug addiction field.

Aims: The purpose of this study is to explore in depth how alcohol and drug treatment can be made more sensitive to female users' treatment needs from the perspective of service providers. Consequently, study findings can inform the development of gender-responsive treatment options and aid to a deeper understanding of how these trends are designated on the continuum of approaches to action and health in the alcohol and drug field.

Methods: Four focus groups were organized across different regions in Belgium with a total of 43 participants, including service providers, policy makers and women who use(d) drugs.

Results: The perspective of the participants on substance use prevention and treatment for female users incorporates some crucial gender-specific and gender-transformative features. Next to implementing mother-child options, a holistic approach, experts by experience and empowering women in treatment, professionals report the relevance of awareness raising campaigns targeting all levels and sectors in society. Also, recurring attention was given to the role of men in the narratives of female users.

Conclusion: Study findings show that the field of alcohol and drug prevention and treatment is being looked at through the lens of gender-responsiveness. However, to achieve improvement in the lives of both women and men, and hence creating more equal chances and opportunities in substance abuse

treatment, the gender-transformative approach in addiction care needs to be further explored, criticized and established in practice and future research.

KEYWORDS

alcohol and drug treatment, substance use, gender, women, gender-transformative, prevention, gender-responsive, trauma-informed care

Introduction

Gender inequity is a pervasive challenge to health equity on a global scale (1–3). Over the last two decades gender has been increasingly recognized by the global community, not as a static phenomenon, but rather a social determinant of health (4). Moreover, both sex and gender are fundamental determinants of health (5). While biological sex may differentially affect health conditions (6, 7), gender socialization and power relations generate many health challenges for all genders that change over time, giving further support to the understanding of gender as a dynamic construct (8, 9).

It is established that individual characteristics and treatment approaches can differentially affect outcomes by gender (10, 11). Recent international research shows substantial progress in our understanding of the influence of gender on, for example, the epidemiology of substance use (12, 13), and its relationship to treatment needs, treatment admission and utilization, and treatment outcomes and effectiveness (14–16).

Research has shown that internal, structural and external factors may influence help-seeking behavior and hamper treatment entry among female substance users (17–19). In addition to external and structural barriers, internal barriers such as shame, guilt and denial of problem substance use are associated with gender violation (20, 21). External barriers that can prevent women from accessing treatment are: limited treatment availability and treatment cost, absence of referral by general practitioners, and a lack of perceived treatment options and identification of services. Although child custody concerns are among the most frequently reported barriers to treatment among female substance users with children (22–25), retaining or regaining custody may also serve as leverage to treatment adherence (26). Similarly, mothers with past child custody loss may internalize this as a barrier to help-seeking, as they feel like they have nothing left to fight for (27), or it may serve as a facilitator for treatment in order to regain custody. The issue of child custody illustrates that help-seeking decisions are multi-layered, dynamic and ambiguous in relation to the meaning-making of women, which impacts help-seeking behavior in different ways (19). Furthermore, external barriers, such as judgemental attitudes of service providers and social stigma, can lead to self-stigma (28). Self-stigmatization results from the internalization of negative stereotypes associated with public stigmatization of persons with substance use disorders (29). Affected individuals will then exclude themselves from public life and be motivated to continue to consume in order to forget, set aside, or reduce the negative feelings arising from their shame (30). Moreover, research shows social stigma to be an even greater barrier to treatment for women than for men (31, 32). Also, previous research on health services generate a range of findings on the organizational characteristics that either facilitate or inhibit treatment entry for women with substance use disorders (33, 34). Thus, women and mothers who use drugs experience a number of additional barriers to treatment (35), including strong maternal and family responsibilities, lack of childcare while being in treatment, scarce economic resources, lack of support from a social network or partner, and greater social stigma.

In order to address these barriers, and attain more gender equity in addiction care, research shows the need for more gender-responsiveness in health programmes and interventions. Women's empowerment is an important determinant to achieve gender equality and needs to be incorporated into service delivery. Enhancing women's empowerment is a process of awareness-raising and capacity-building in order to increase participation, improve decision-making power, and generate action in the health sphere (36, 37). Pederson et al. (38) developed a model representing a continuum of potential gender-responsive interventions derived from discussions during the HIV-AIDS epidemic (39) and emerging evidence on factors relating to how health interventions apply to gender (9) (Figure 1). This continuum, based on the WHO's Gender Responsive Assessment Scale (40), illustrates that health interventions can exploit, accommodate, or transform gender norms, systems and relations in the way that they frame an issue, use imagery and language and/or engage with gender inequity. A gender-sensitive approach is the first, crucial step toward a gender-responsive policy, as it indicates awareness of gender inequalities. However, it does not address these inequalities. Gender-specific and gender-transformative approaches to health interventions are essential, progressive steps toward gender mainstreaming.

Gender-transformative approaches "actively strive to examine, question, and change rigid gender norms and imbalance of power as a means of reaching health as well as gender equity objectives" [(41), p. 8, (40)]. This includes the development of approaches that avoid reproducing harmful gender norms or stereotypes, and empower men and

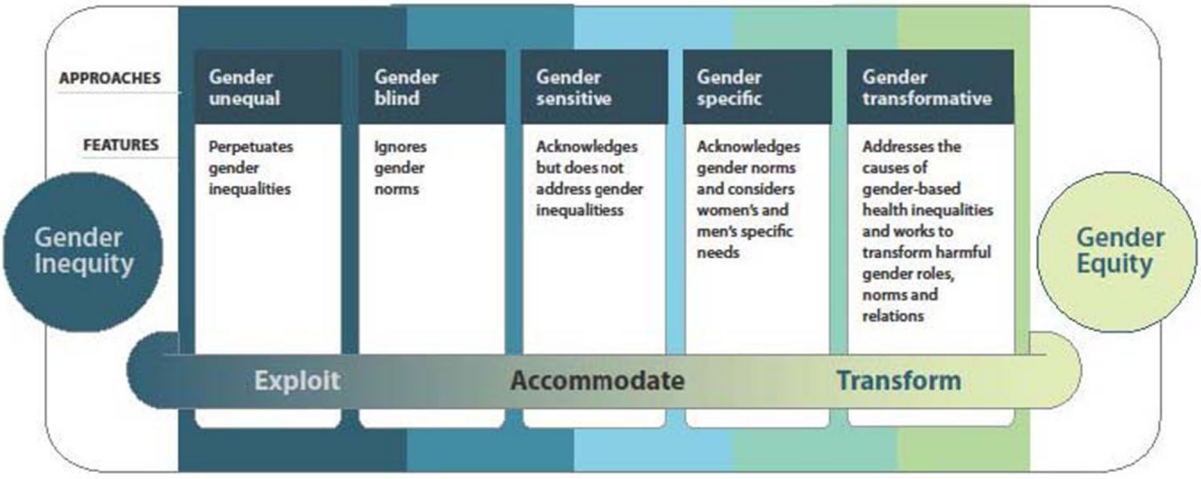


FIGURE 1
A continuum of approaches to action on gender and health. Inspired by remarks by Geeta Rao Gupta, Ph.D, Director, International Center for Research on Women (ICRW) during her plenary address at the XIIIth International Aids Conference, Durban, South Africa, 12 July 2000: "To effectively address the intersection between HIV/AIDS and gender and sexuality requires that interactions should, at the very least, not reinforce damaging gender and sexual stereotypes" [see also (40)].

women to attain their health potential. Gender-transformative approaches are characterized by four core principles (38). These interventions are women-centered hereby empowering and considering women as active agents of change in their lives. Interventions that foster harm-reducing approaches provide pragmatic support by helping with immediate goals and providing a variety of options and support. They focus not only on narrow goals related to change in specific health behaviors, but also on facilitating change across the full range of influences and harms associated with this behavior (42). Also, interventions that are explicitly trauma-informed through for example reparative, trustworthy relationships (43) are promising ways of engaging directly with how gender shapes women's health. Finally, gender-transformative interventions are strengths-based and focus on restoring and building health, rather than identifying women's shortcomings (44).

Evidence indicates that programmes incorporating a gender-transformative approach and promoting gender-equitable relationships between men and women are more effective in producing behavior-change than gender-sensitive or gender-neutral programmes (45). This gives weight to the argument that multi-issue programmes using a more nuanced social constructionist and ecological framework are more effective than single issue and individual-focused interventions. Thus, integrated programmes are most effective in changing behavior (45). Heymann et al. (46) define multisectoral action, multilevel and multistakeholder involvement, and diversified programming as key features of high-quality gender-transformative programmes, along with social participation and empowerment. Empowering people to be active agents in their own lives is crucial, but targeting societal structures is equally essential to leverage individual changes and achieve long-lasting effects (47). Programmes that advocate critical reflection among men and women on their socialization into specific gender roles and norms, and even more, that seek to transform norms, have the potential to improve health and wellbeing across many areas of health, and for long periods across the life course (48–50).

The social constructionist approach indicates that gender norms are socially constructed, vary across historical and local contexts, interact with other factors (e.g., poverty and globalization), and are created, reinforced and reconstructed by families, communities and social institutions (51, 52). Gender norms and the reproduction of these norms, are directly related to women's and men's health-related behaviors, with implications for themselves, their partners and their children (53). Over the past three decades, more importance has been placed on treating of "men as partners" in women's health and gender-transformative programming (54). Consequently, a number of international organizations have affirmed the need to engage men and boys in questioning inequitable gender norms (45). Liberating men from gender and sexuality norms that have a negative impact appears to be a decisive step toward attaining gender equity and enhancing health for both men and women (48). Recent research on the implementation of gender-transformative interventions shows that men's involvement is important. For example, a lack of participation of men in programs improving sexual and reproductive health has been revealed as one of the reasons for poor progress in family planning and the use of contraceptives (55). Others show that the engagement of men in family health can create better health (56).

While, a significant body of research found that most organizations have adopted gender mainstreaming policies, little is known about the full effect of these programmes because of several gaps in programme design, implementation and

evaluation (57–59). Despite a considerable body of evidence and lessons learned from experiences in applying gender mainstreaming policies, this evidence is limited to certain health areas, such as sexual and reproductive health and rights, newborn, child and adolescent health, HIV/AIDS, and gender-based violence programming and service delivery, with major gaps in other areas with large burdens of disease, including mental health (60). Recently, the United Nations University International Institute for Global Health (UNU-IIGH) and the WHO recognized the urgent need to analyse, extend and transfer lessons learned regarding gender-transformative approaches to other areas of health (61).

The present study was undertaken as part of the GEN-STAR study (GENder-Sensitive Treatment and prevention services for Alcohol and drug useRs) in Belgium, which aimed to assess the availability of, and need for, prevention and treatment approaches sensitive to the needs of women, as well as the obstacles and challenges experienced by female substance users in utilizing these services (62). The findings show that the gender dimension is an actual concern among some alcohol and drug prevention and treatment services in Belgium, and different types of outpatient and residential initiatives sensitive to the needs of women are identified. Still, service users, as well as treatment providers, report a lack of initiatives that are sensitive to the needs of female users (19). Additionally, the current literature in the field of alcohol and drug prevention and treatment focuses mainly on gender-sensitive and gender-specific interventions, while the field of global health promotion pledges that there is more to discover and introduces a gender-transformative perspective (38). The purpose of this study is to explore in-depth how alcohol and drug treatment can be made more sensitive to female users' treatment needs from the perspective of service providers. Consequently, study findings can inform the development of gender-responsive treatment options and aid to a deeper understanding of how these trends are designated on the continuum of approaches to action and health in the alcohol and drug field.

Methods

Participants

By means of a focus group strategy, prerequisites for implementing services sensitive to women's needs were explored. In total, four focus groups of 8–14 participants were organized across different regions in Belgium, i.e., one in Wallonia, one in Brussels and two in Flanders ($n = 43$). Various stakeholders were involved that are familiar with challenges and obstacles encountered by women in relation to treatment. Alcohol and drug services that were identified in an earlier stage of the research were contacted and invited to participate. Other stakeholders working in the field of alcohol and drug prevention and treatment or who are frequently in contact with women who use drugs were invited as well. The continuum of care was taken into account and reflected in the variety of participants, including social workers, general practitioners, psychologists, nurses, midwifes, and programme coordinators. Additional attention was given to the diversity of profiles by involving men as well as women, younger and more experienced persons, and professional experts as well as former users working as experts by experience, and service users (Figure 2).

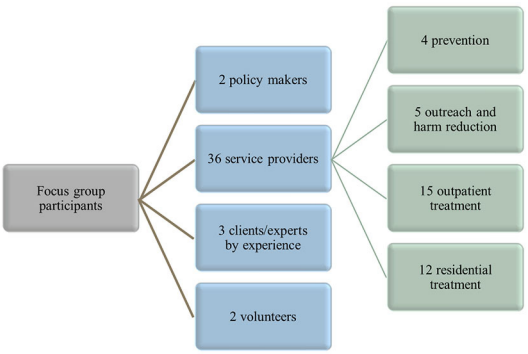


FIGURE 2
Participants of the four focus groups in Belgium ($n = 43$).

Data collection and analysis

The focus groups were organized between February and April 2018. Each session took approx. two hours and was facilitated by one of the two project researchers, assisted by an additional researcher who took notes throughout the whole process. The GPS Brainstorm toolkit[1], was used as a structuring method to organize the focus groups and to formulate concrete recommendations for the development and implementation of a more gender-responsive approach in treatment settings for female substance users. This GPS Brainstorm technology was developed by Flanders DC, the Flemish organization for entrepreneurial creativity, and can be used to brainstorm in a group of 8–14 persons. Each group started by stating: "How can we make alcohol and drug services more sensitive to the needs of female substance users?". To this end, five topics were put forward for discussion, in addition to one empty field. These five specific issues were repeatedly mentioned by female substance users during sixty in-depth interviews in an earlier stage of the research (62): (a) social stigma hindering recognition of specific female needs; (b) responsibilities of women in society as an impediment to self-care; (c) "feeling safe" as a crucial factor in treatment; (d) a plea for a holistic approach; (e) experts by experience and peers to comfort support in treatment. A focus group based on the GPS Brainstorm toolkit consists of three

1 https://www.flandersdc.be/en

steps: *Generating and classifying ideas*. Participants sit in pairs to explore each specific topic. A board is installed on a table and divided in six parts, each part for one topic. Participants stay around this board. During the session, the GPS board turns and all participants have the opportunity to write ideas on post-its for each theme; *Selecting ideas*. After this first step, participants explore the different ideas on the post-its and vote for ideas that they would like to be realized or that they find particularly pertinent to develop a gender-sensitive approach in the alcohol and drug demand reduction field; *Elaborating ideas in specific project cards*. After having established a ranking of the most relevant ideas, participants briefly develop a project card for the three selected top ideas, including the following elements: title of the idea, definition of the idea, advantages, disadvantages, solutions, impact, and required parties. In the two focus groups in Flanders, the last phase of the brainstorm was not completed due to time restrictions. However, the main ideas were ranked according to relevance, as well as elaborated orally rather than written down on the provided project cards. All the ideas were kept and organized afterwards. Similarities and differences between the different focus groups, as well as the most frequently selected ideas, were discussed among the two project researchers.

Results

The focus groups demonstrate different measures and opportunities regarding the implementation of a gender-responsive approach in the alcohol and drug demand reduction field, which are clustered in eight themes (Figure 3). Only the items that were central to participants' experiences are described. The results exclusively reflect the thoughts and ideas of the experts present in the focus groups, in order to improve gender-responsiveness and implement more effective initiatives for women in Belgium.

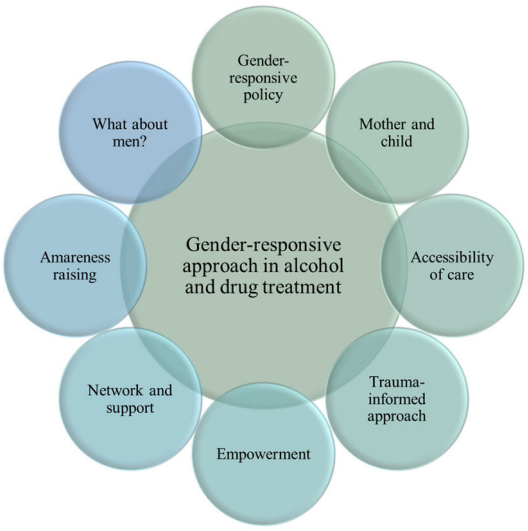


FIGURE 3
Clusters of themes and interventions toward a gender-responsive approach in alcohol and drug treatment for women.

Gender-responsive policy

Service policy on gender-responsiveness

In pursuit of an optimal integration of gender-responsive measures, several professionals mention the need for a comprehensive policy regarding gender-responsiveness by alcohol and drug prevention and treatment services. This policy is managed in a dynamic, evolving and interactive document available for all staff members. A general philosophy and framework should be included as well as specific guidelines, procedures and practices grafted on the particularities of the service. Hence, this document could serve as a starting point for concrete methods to work with female users in the programme(s) and service(s). In this way, a better understanding of the concept gender-responsiveness can be created, consequently allowing an easier translation to methods and practices.

Gender-responsive way of thinking

Three of the focus groups acknowledge that it is essential that all gender-responsive initiatives, measures and programmes are embedded in a global gender-responsive atmosphere, respecting some key features, such as a safe and welcoming environment, accessibility and affordability, and guaranteed anonymity. Further, to ensure continuity and a relationship of trust with female users, initiatives should strive for long-term goals rather than applying short-term projects, and the attitude of staff members working with female users needs to be open-minded and non-judgmental. Further, it is preferable that gynecologists, psychologists or doctors for female users in treatment centers are women, since women tend to talk more openly about sensitive topics with other women than with men. A policy in which a "person of reference" is appointed in treatment centers allows female users to at least have the choice whether their counselor is a man or a woman.

Expertise

In all focus groups, the current lack of, and need for, exchanging good practices between professionals is mentioned. Learning from methods and procedures in other programmes is extremely valuable and may offer opportunities for implementation in one's own programme. It can also facilitate collaboration with other alcohol and drug services

or cross-system collaboration. A digital platform could meet these needs. In addition, several experts express the need for more training opportunities regarding gender issues. Specific training could be helpful for professionals in order to enhance awareness of women and female users' specificities, as well as existing representations and stigmatizations regarding women and substance use.

Mother and child

Child-friendly setting

One of the most important challenges defined in outpatient services is the lack of practical and infrastructural measures specifically targeting children of mothers who use drugs. Examples are the creation of a kids corner or a room with toys for children, as well as assigning a staff member time to take care of children whilst their mother can have a consultation with a counselor or doctor. But even beyond that, it concerns efforts made toward women to ensure a welcoming place and a service that is well-adapted to their realities. The service should allow more flexibility regarding opening hours and consultations for female users, taking into account their responsibilities as a mother which often hamper help-seeking behavior and treatment retention.

Treatment options for substance using mothers and their child(ren)

There are currently eight outpatient treatment services in Belgium for parents/mothers and their child(ren) which are addressed by a great number of female users. However, the demand is higher than the capacity of these programmes, confronting some women with a waiting list and no proper care immediately available. Moreover, the scope of these services is particularly local, leading to counselors not being able to meet the needs of women living further away from services. Regarding residential treatment services for parents/mothers and their child(ren), experts acknowledge a similar challenge. The request for these services is high, whereas the available places are limited, often resulting in a waiting list for mothers in need. Hence, there is a clear demand for more outpatient and residential services for mothers and their child(ren). Related to the focus on families in recovery, maintaining the "kangaroo room" within hospitals is reported to be an issue as well. These specific rooms allow to develop and strengthen the mother-child bond after birth.

Detox department reserved for mothers and their child(ren)

In that regard, placement of the child(ren) by child protection services can be avoided as well as a breakdown of the mother-child bond, as this seems to be a major source of motivation for drop-out or continuation of the treatment programme. However, the stakeholders call attention to the fact that this kind of service is promising, but might not be suitable for every mother. Above all, enrolling into treatment as well as agreeing to the conditions related to the treatment setting, will always remain the mother's own choice. The personal situation, the age of the child(ren), the motivation as well as the support of family and friends are all decisive aspects in this context.

Multi-sectoral action

Study findings suggest the creation of services that are mainly dedicated to the daily responsibility of a mother toward her child(ren) outside the alcohol and drug demand reduction field. By portraying specific needs and demands regarding child(ren), services are allowed to set up a better and more customized support and assistance not only for mothers who use drugs, but also for their environment. Suggestions for adapted services within this domain of wellbeing for both mother and child(ren) are nurseries, medical care for mothers and child(ren), and parenthood counseling. The idea is to create a supportive structure outside the alcohol and drug demand reduction field, thereby attempting to remove the potential label of "addict," perceived as an obstacle to care by mothers who use drugs and by society.

Accessibility of care

Alternate services

To optimize accessibility of treatment services, several professionals discuss less conservative and more innovative options to reach female users, such as online self-help groups and a helpline with flexible hours. Women might appeal to these initiatives at the most convenient time for them and from wherever they are. Hence, having children or a lack of transportation would then be less of a barrier to seek treatment. Also, by safeguarding their anonymity, these opportunities reduce the risk of being stigmatized along with feelings of fear and shame. Female users in outpatient settings tend to have more immediate and basic needs (e.g., eating, getting some rest, paraphernalia for injecting drugs, and having a shower). These needs highlight the importance of outreach and street work, like a mobile bus with medical services. The "médibus" in Brussels run by Dune and Doctors of the World is a good practice mentioned in this regard. The staff provides paramedical care, syringe exchange and attempts to implement a harm reduction philosophy. Being available and present at the time that women formulate their need for help, is of crucial value to female users.

Financial reimbursement

In all focus groups the experts mark an important lack of easy access to specific services for women who use drugs,

like gynecologist consultations or contraception. Often, financial restraints hinder female users to see a doctor or gynecologist, let alone use an appropriate method of contraception. They plea for a minimum price for contraception and health practitioner visits, or even make it costless for vulnerable populations.

Trauma-informed approach

Mapping specific needs

Several professionals indicate the importance of acknowledging specific female needs from the start of the treatment programme in outpatient as well as residential settings. Sensitive topics for women such as trauma, violence, sexual abuse, should be explored and recognized from the intake procedure onwards, and taken into account throughout the entire trajectory of care. In this regard, trauma-informed care does not require trauma treatment within women's substance use treatment, but should instead be seen as a way of working with women likely to have trauma histories that does not retraumatize. Trauma-informed care should be tailored to women's own pace and specific needs. The introduction of trauma specific services can therefore be offered in a staged way (e.g., in aftercare).

Combination of single-gender and mixed-gender approaches in treatment

In all focus groups experts call for a combination of single-gender and mixed-gender elements in treatment. From their experiences, women tend to talk easier and more freely in a women-only group. Also, it seems that the absence of men enhances their feelings of safety. On the other hand, the experts acknowledge that women need to learn again to be confronted with men and live together in a healthy way. Treatment including counseling and a safe environment is an ideal way to start this process. The concept of specific support groups for women only in outpatient settings and in residential programmes already exists, but deserves more attention, especially in mixed-gender programmes. These groups allow women to get out of seclusion by creating and maintaining ties, and therefore reinforce their female identity and empowerment. A non-judgmental outpatient initiative where women can be heard about specific women-related themes such as sexuality, sex work, parenthood and violence, and where they can freely share their own reality in a safe environment, can also offer an opportunity to learn more about treatment options in specialized addiction services. These groups can be a safe place to exchange and share knowledge and experiences, besides the added value of talking about sensitive topics. As mentioned before, participants report that the social dynamic differs when an initiative involves both men and women. In that respect, a space dedicated to women only, such as a separate bathroom or a specific living room, is highly recommended in both outpatient and residential mixed-gender services. The dependency on men, and more precisely a man from the close network of a female user, was regularly commented upon by the participants. Hence, the importance of preserving women-only residential programmes is underlined by the stakeholders. These centers allow a safe and welcoming space for women, in which they can focus on themselves, without the pressure of a partner or member of their close network. Nevertheless, in order to maintain a good balance in the diversity of approach and treatment, it is essential to keep the overall composition of staff mixed-gender. Moreover, given the heterogeneity within female substance users, it is crucial to maintain diversity regarding age, sex, ethnicity and professional background in a multidisciplinary team.

Empowerment

Seminars and training

One prominent factor in treatment of female users that was cited frequently is providing a series of psycho-educational seminars and training opportunities. The experts point at some crucial topics that are greatly valuable to focus on in treatment such as self-awareness, self-confidence and self-knowledge. In addition, treatment programmes should offer assertiveness training to female users, empowering them in the strength to stand up for themselves and the courage to refrain from certain situations or people (i.e., often men).

Holistic approach

In all focus groups the idea of a holistic approach of care and services is mentioned. In order to consider body and mind in a gender-sensitive approach, it is important that female users can first be seen as women, before being seen as substance users. However, in a holistic perspective not only education or psychotherapy regarding body image is an added value for treatment of female users. Additionally, attention must be drawn to spiritual health. Recovering in a holistic way is healing one's relationships and environment, respecting one's body, setting new perspectives and goals, and finding one's soul purpose. Finding more time and space to learn the pleasures of life again is an integral part of the process. In this regard, experts propose to integrate yoga classes, relaxation sessions and mindfulness sessions in treatment programmes for female users.

Network and support

Professional and private network

Experts suggest the need to create and develop networks around female users, consisting of both professionals and private

persons. In regards to the establishment of a professional network, creating a solid network in the field of alcohol and drug demand reduction is essential. However, the professional network should be extended to services not directly related to substance use. Consequently, at the time of admission in treatment every specificity needs to be considered, i.e., issues like mental health, childcare, social support, sexuality, trauma, and housing require special attention. This allows other services to be integrated in women's trajectories of care, for instance child protection services, sex worker services or general healthcare services like a dentist, oculist and gynecologist. Integrated and regrouped services at proximity can facilitate treatment and health care engagement by reducing travel efforts and avoiding losing women between services. However, while support needs to be offered to women in a range of areas, it is important that women be supported to choose the services they are ready to access and be encouraged to pace themselves. A better exchange of information between services is key to a better understanding of each specific situation and ensures better outcomes. To this end, a solid collaboration structure is required. A global socio-medical file could be helpful in creating integrated services and serve as a tool to share information with the different stakeholders. However, special attention must be paid to the informed consent of the client. This is essential as the client is to decide which type of information can be shared between professionals.

Experts by experience

Professionals in all focus groups indicate the importance of the active role of female experts by experience in the process of recovery among female users. Such active role could be established in many ways, going from an expert by experience telling her story a single time, to experts by experience working as qualified counselors in the treatment programme. Female users report to feel understood in a better way by experts by experience than by counselors for the reason that the former have experienced a comparable battle, emotions and wheel of life. Further, the participants describe the request of some experts by experience to give significance to their past of substance use by using their experiences to help other female users in their process of recovery. They also express the value of motivating female users to use and share their experiences in the future. The volunteering of experts by experience in a treatment programme is already a point of attention for some centers. However, the lack of time or sufficient staff is problematic to appropriately support experts by experience. Additionally, experts note the concern of anonymity. Female users refuse to talk about sensitive topics and their emotions with someone they formerly know from their drug network. Hence, when working with experts by experience the programme needs to be sure that former users and female users in the programme do not know each other. Also, former users working as experts by experience need to be recognized in their mandate by clients on the one hand and by fellow staff members on the other hand in the pursuit of equivalence among all staff members. Considering these remarks, the stakeholders state that integrating former female users as experts by experience in treatment programmes can be constructive, provided that attention is given to establishing a clear vision and monitoring its implementation. A good programme structure to manage experts by experience is necessary, as well as recognition with regard to mandate and remuneration. Special attention must be given to not replacing the work of staff by experts by experience only, and integrating experts by experience from outside the regional area. Finally, experts propose to develop a network of experts by experience in Belgium. By doing so, a service from one region could consult an expert by experience from another region.

Awareness raising

Prevention campaigns

In all focus groups the importance of campaigns for prevention and awareness raising concerning women and substance use targeted at female users themselves, but also at the societal level is stressed. The social stigma on female users is particularly high and several misconceptions are persistently present in society, resulting in feelings of shame and guilt reported by female users. Whether to focus in these information campaigns on women only or including men and women, should be well-considered. Campaigns should be gender-specific in their design and message. Finally, prevention needs to be innovative in the methods that are used, for example, by looking for opportunities in new technologies, like smartphone apps and social media.

General population

First, interventions aimed at reducing the stigma on mental illness and substance use, especially regarding female clients, are desirable. The Flemish mental health prevention campaign "Te Gek" is mentioned as an example of good practice and a starting point to develop new prevention campaigns. A campaign of this nature could raise awareness about gender stereotypes, inequalities and attitudes among a broad audience and could result in a more gender-sensitive attitude toward vulnerable groups. In general, public education and information campaigns are not sufficient for reducing alcohol-related problems. Media advocacy approaches, however, can be helpful to gain public support for policy changes.

Professionals

Second, prevention should target professionals supporting female users (such as general practitioners, gynecologists,

dentists, counselors) to make them aware of the specific needs of this population and to decrease the judgements that female users might be exposed too. Such judgements could again induce feelings of shame and guilt, which is counterproductive for seeking help. To increase efficient referrals, adequate information on helping resources for female users and their families is necessary for general health and mental health professionals.

Women who use drugs

Third, prevention campaigns regarding the use of contraception and other aspects of female hygiene should be targeted specifically to female users. Harm reduction messages concerning, for example, infectious diseases and the use of legal and illegal substances could prevent harm on various health domains. Based on the epidemiological findings, it is clear that gender-specific information should at least include information on alcohol and medication, since these are the main substances for female users.

Treatment centers

In all focus groups a global policy of awareness-raising on stereotype gender roles, attitudes, behaviors and inequalities within the centers and more globally in society was deemed an important focus. This type of initiative requires including men imperatively, and holding a multi-foci perspective, allowing various themes such as domestic violence, parenthood, familial responsibilities and contraception to be discussed and worked through. For the stakeholders, these themes are directly linked to the multiple roles and responsibilities that women face in their everyday life and that entail a permanent social pressure. Consequently, providing services and facilitating treatment entry for women is complicated. It is essential to create separate group sessions for both men and women, in addition to mixed-gender therapy groups and comprehensive psycho-educational seminars within treatment centers. Awareness among both men and women needs to be raised on the different roles that women take up in society. Doing so in treatment, allows women to be better prepared for a life after treatment on the one hand, and opens up the possibility to break through stereotyped thinking. Another way to reduce stigmatization and stereotype gender attitudes can be by implementing gender-challenging activities in treatment centers. These activities contain inversed or neutral roles, for example a mechanic class for women and a knitting course for men. Residents in the treatment programme can choose the activity of their preference.

What about men?

An overall remark and topic that is recurrently discussed is the role of men in the narratives of female users. The experts in the focus groups indicate that men have a responsibility toward women and many related issues such as gender stereotypes and responsibilities in society, as well as the social stigma on female users. In many of the above mentioned ideas and points of attention, men need to be involved and addressed as much as women. Prevention and awareness raising campaigns not only have to address and inform women, but also need to make men aware of certain historically grown societal norms and tendencies influencing women and the way they are looked upon. Also, men need to be involved in the use of contraception and the accessibility of a general practitioner and a gynecologist in order to encourage and manage birth control and sexual health among women. Further, when developing and implementing psycho-educational seminars in treatment programmes around topics such as assertiveness, body image and responsibilities, men need to be involved in a certain way and at a certain time in the process. Though in doing so, counselors need to be cautious to still allow women to feel safe at any time.

Discussion

Extensive international research has shown that female substance users experience several internal and external barriers to treatment (i.a., 17, 34). In addition, service providers, as well as service users, report a lack of alcohol and drug treatment initiatives in Belgium that are sensitive to the needs of women (19). This is one of the first studies internationally to explore in depth how policy, service providers and service users jointly evaluate and assess the field of alcohol and drug prevention and treatment, and debate on the way forward, i.e., the nature, degree and quality of gender-responsiveness that is needed within programmes or policy in alcohol and drug treatment services.

The perspective of the participants on substance use prevention and treatment for female users incorporates some crucial gender-specific and gender-transformative features. In line with previous research identifying multisectoral action and multistakeholder involvement as crucial features of a gender-transformative approach (45, 46), this study reinforces the need for an integrated approach to support that is sensitive to the needs of female substance users. Findings demonstrate that an integrated approach to the gender dimension is needed, i.e., a strategy that aims to strengthen gender equity in society by giving the gender dimension a place in the content of policies throughout the continuum of care, e.g., not only in alcohol and drug treatment services, but also in prevention and health promotion, and general health services. In order to make care more attuned to female users, adopting gender mainstreaming policies in a diversity of services and organizations is essential to complement more concrete actions at the structural and individual level, such as empowering female substance users and providing services for women (63).

Further, this study shows a lack of approaches that are sensitive to the needs of women in substance use prevention in Belgium and a need for integrated prevention campaigns, focusing on awareness raising and sensitization. These initiatives should not only target girls and young women, but society at large (64, 65). Also, prevention initiatives should be embedded in a broader long-term approach of substance abuse prevention and treatment, rather than serve as a stand-alone campaign (66). Further, the subject of gender-sensitive prevention should not only focus on female substance use, but also on gender inequity, gendered roles and responsibilities in society, and social stigma (67, 68). Consistent with research that has found that diversified programming is key to a gender-transformative approach (46), the present results demonstrate that prevention campaigns must reinforce one another and address the issue of substance abuse from multiple perspectives. Also, by expanding the focus of prevention campaigns to issues broader than substance use itself, alcohol and drug prevention fosters a harm-reducing approach.

Parallel to the findings of prior research (47), our findings indicate that services for alcohol and drug treatment and after care benefit from an integrated approach of support for female substance users. On a more structural level, participants emphasize the importance of building networks of well-cooperating services to support women in a range of areas, such as mental health, child care, education, and housing (63). These general services function best when reinforcing one another, as well as alcohol and drug services, assuring a harm-reducing perspective (69). Rather than isolated gender-responsive services and programmes, the alcohol and drug addiction field should aim at creating full integration of gender expertise and accountability across the sector (61). In keeping with an integrated orientation, the research results also show the need for several specific services for women, i.e., outpatient and residential treatment services for mothers and their child(ren), a detox or crisis intervention center in residential treatment for women and mothers with their children, easy accessible online support, and services for general care and wellbeing of women. The latter in the pursuit of reducing or ideally even defeating the social stigma surrounding female substance use (70, 71). However, participants express the importance of both women-only and mixed-gender aspects in the trajectory of care of female users. Engaging both men and women in questioning inequitable gender norms and empowering women leads to a greater impact on health outcomes (45).

In addition to targeting societal and organizational structures, the study results indicate various adaptations to programmes, interventions and services in order to make them more responsive to the needs of women (72). Women need to be empowered to be active agents in their own lives. The call for psycho-educational seminars on e.g., self-awareness, self-confidence and self-knowledge, and assertiveness training in treatment programmes coincides with the core principles of gender-transformative approaches, i.e. interventions that are explicitly women-centered and strengths-based (38). Further, programmes for female users need to adopt a holistic approach (73), respecting and addressing recovery in a physical, mental and spiritual way.

Last, and recurring throughout all focus groups, is the crucial role of men in the narratives and trajectories of care of female substance users. There is not only a need to learn from and effectively engage with men as they bring new perspectives (61), but also to question and raise awareness among men about historically grown inequitable gender norms and their impact on health and stigma. Men must be involved in changing rigid and harmful gender norms that affect women's health in society and in treatment centers.

In sum, according to the study findings, the alcohol and drug addiction care should seek to move beyond a narrow focus on individual-level change, and equally center on restructuring the power relationships that create and maintain gender inequalities. A significant body of measures mentioned in our research is in line with a gender-transformative approach. Also, the methodology of the research itself (i.e., four heterogeneous focus groups) advocates a gender-transformative approach as a multi-sectoral group including researchers, outpatient as well as residential service providers, prevention workers, mental health clinicians, government policy analysts, service users and experts by experience were united.

This study is the first of its kind in Belgium to investigate the road to a gender-transformative approach in the field of substance use from the perspective of policy, service providers and users. It could serve as basis for further research, in particular to develop a stronger knowledge base around gender-responsive programmes, and to identify the prerequisites for development and implementation of these programmes. To achieve improvements in the lives of both women and men, and generate more equal chances and opportunities in substance abuse treatment, the gender-transformative approach in addiction care needs to be further explored, criticized and established in future research. Drawing on this knowledge, policymakers will be able to develop best practice guidelines that will meet the needs of women. Programme developers and policymakers are tasked with moving our findings from a set of recommendations and interventions to a coherent set of initiatives, policies and programmes that work to strategically enhance women's lives and health. This study also indicates a need for further examination and discussion of the impact of men's involvement on women in treatment and recovery. More interdisciplinary research should be conducted to define how best to improve engaging men in the transformation of social and gender norms and hopefully to define new strategies for improving the health of female users through integrated, holistic interventions. Finally, a critical conceptual note is made on the continuum of approaches on gender and health. Should we aim for gender equity, i.e., everyone gets the support they need, thus producing equity, or rather pursue gender justice, i.e., addressing the underlying causes of inequity (74)?

Data availability statement

The original contributions presented in the study are included in the article/supplementary materials, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the Ethical Committee Faculty of Psychology and Educational Sciences University of Ghent. The patients/participants provided their written informed consent to participate in this study.

Author contributions

JS and WV conceived and designed the study. JS conducted the focus groups, led the manuscript writing, and incorporation of the focus group results. WV and FM reviewed the manuscript. All authors read and approved the final manuscript.

Funding

This work was supported by the Belgian Science Policy (DR/00/73) and the Federal Public Service Health, Food Chain Safety and Environment.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

References

1. Danylova TV, Kats LA. All animals are equal, but some animals are more equal than others: the negative impact of gender inequality on the global economy and public health. *Anthropol Measure Phil Res.* (2019) 15:101–10. doi: 10.15802/ampr.v0i15.168842

2. Heise L, Greene ME, Opper N, Stavropoulou M, Harper C, Nascimento M, et al. Gender inequality and restrictive gender norms: framing the challenges to health. *Lancet.* (2019) 393:2440–54. doi: 10.1016/S0140-6736(19)30652-X

3. Moss NE. Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Soc Sci Med.* (2002) 54:649–61. doi: 10.1016/S0277-9536(01)00115-0

4. Becker JB, McClellan M, Reed BG. Sociocultural context for sex differences in addiction. *Addict Biol.* (2016) 21:1052–9. doi: 10.1111/adb.12383

5. Benoit C, Shumka L. *Gendering the Health Determinants Framework: Why Girls' and Women's Health Matters*. Vancouver, BC: Women's Health Research Network (2009).

6. Bangasser DA, Cuarenta A. Sex differences in anxiety and depression: circuits and mechanisms. *Nat Rev Neurosci.* (2021) 22:674–84. doi: 10.1038/s41583-021-00513-0

7. Massey SC, Whitmire P, Doyle TE, Ippolito JE, Mrugala MM, Hu LS, et al. Sex differences in health and disease: a review of biological sex differences relevant to cancer with a spotlight on glioma. *Cancer Lett.* (2021) 498:178–87. doi: 10.1016/j.canlet.2020.07.030

8. Greaves L. Can tobacco control be transformative? Reducing gender inequity and tobacco use among vulnerable populations. *Int J Environ Res Public Health.* (2014) 11:792–803. doi: 10.3390/ijerph110100792

9. World Health Organization (WHO). *Gender, Women, and Primary Health Care Renewal: A Discussion Paper*. Geneva: World Health Organization (2010).

10. Lucabeche VX, Quinn PV. Court-mandated treatment outcomes for prescribed opioid use disorder: a gender based study. *J Drug Issues.* (2022) 52:47–66. doi: 10.1177/00220426211044410

11. Schweinhart A, Shamblen S, Shepherd C, Courser MW, Young L, Morales B, et al. Gender differences in patient outcomes following drug abuse treatment in Afghanistan: results from a new evaluation. *Journal of Substance Abuse Treatment.* (2022) 134:108475. doi: 10.1016/j.jsat.2021.108475

12. Govia IO, Doubova SV, Younger-Coleman N, Atkinson U. Gender differences in prevalence and risk factors associated with substance use in 50- to 65-year-old Jamaicans. *J Addict Nurs.* (2021). doi: 10.1097/JAN.0000000000000430. [Epub ahead of print].

13. Greaves L. Missing in action: sex and gender in substance use research. *Int J Environ Res Public Health.* (2020) 17:2352. doi: 10.3390/ijerph17072352

14. Franke AG, Neumann S, Proebstl L, Kamp F, Hager L, Manz K, et al. Psychiatric comorbidity and psychopathology of methamphetamine users—are there gender differences? *Int J Ment Health Addiction.* (2022). doi: 10.1007/s11469-021-00743-4. [Epub ahead of print].

15. Grella CE. From generic to gender-responsive treatment: changes in social policies, treatment services and outcomes of women in substance abuse treatment. *J Psychoactive Drugs.* (2008) 40:327–43. doi: 10.1080/02791072.2008.10400661

16. Tang A, Claus RE, Orwin RG, Kissin WB, Arieira C. Measurement of gender-sensitive treatment for women in mixed-gender substance abuse treatment programs. *Drug Alcohol Depend.* (2012) 123:160–6. doi: 10.1016/j.drugalcdep.2011.11.003

17. Gueta K. A qualitative study of barriers and facilitators in treating drug use among Israeli mothers: an intersectoral perspective. *Soc Sci Med.* (2017) 187:155–63. doi: 10.1016/j.socscimed.2017.06.031

18. McCann TV, Lubman DI. Helpseeking barriers and facilitators for affected family members of a relative with alcohol and other drug misuse: a qualitative study. *J Subst Abuse Treat.* (2018) 93:7–14. doi: 10.1016/j.jsat.2018.07.005

19. Schamp J, Simonis S, Roets G, Van Havere T, Gremeaux L, Vanderplasschen W. Women's views on barriers and facilitators for seeking alcohol and drug treatment in Belgium. *Nordisk Alkohol Nark.* (2021) 38:175–89. doi: 10.1177/1455072520964612

20. Grella CE, Scott CK, Foss MA, Dennis ML. Gender similarities and differences in the treatment, relapse, and recovery cycle. *Eval Rev.* (2008) 32:113–37. doi: 10.1177/0193841X07307318

21. Paris R, Herriott AL, Maru M, Hacking SE, Sommer AR. Secrecy versus disclosure: Women with substance use disorders share experiences in help seeking during pregnancy. *Matern Child Health J.* (2020) 24:1396–403. doi: 10.1007/s10995-020-03006-1

22. Adams ZM, Ginapp CM, Price CR, Qin Y, Madden LM, Yonkers K, et al. A good mother: impact of motherhood identity on women's substance use and engagement in treatment across the lifespan. *J Subst Abuse Treat.* (2021) 130:108474. doi: 10.1016/j.jsat.2021.108474

23. Brogly SB, Link K, Newman A. Barriers to treatment for substance use disorders among women with children. *Can J Addict.* (2018) 9:18–22. doi: 10.1097/CXA.0000000000000025

24. Oni HT, Drake JA, Dietze P, Higgs P, Islam MM. Barriers to women's disclosure of and treatment for substance use during pregnancy: a qualitative study. *Women Birth.* (2021). doi: 10.1016/j.wombi.2021.12.009

25. Stone, R. Pregnant women and substance use: fear, stigma, and barriers to care. *Health Justice*. (2015) 3:2. doi: 10.1186/s40352-015-0015-5

26. Elms N, Link K, Newman A, Brogly SB. Need for women-centered treatment for substance use disorders: results from focus group discussions. *Harm Reduct J.* (2018) 15. doi: 10.1186/s12954-018-0247-5

27. Meulewaeter F, De Pauw S, Vanderplasschen W. Mothering, substance use disorders and intergenerational trauma transmission: an attachment-based perspective. *Front Psychiatry*. (2019) 10:728. doi: 10.3389/fpsyt.2019.00728

28. Otiashvili D, Kirtadze I, O'Grady KE, Zule W, Krupitsky E, Wechsberg WM, et al. Access to treatment for substance-using women in the Republic of Georgia: Socio-cultural and structural barriers. *Int J Drug Policy.* (2013) 24:566–72. doi: 10.1016/j.drugpo.2013.05.004

29. Hammarlund R, Crapanzano KA, Luce L, Mulligan L, Ward KM. Review of the effects of self-stigma and perceived social stigma on the treatment-seeking decisions of individuals with drug- and alcohol-use disorders. *Subst Abuse Rehabil.* (2018) 9:115–36. doi: 10.2147/SAR.S183256

30. Matthews S, Dwyer R, Snoek A. Stigma and self-stigma in addiction. *Bioethical Inquiry.* (2017) 14:275–86. doi: 10.1007/s11673-017-9784-y

31. Meyers SA, Earnshaw VA, D'Ambrosio B, Courchesne N, Werb D, Smith LR. The intersection of gender and drug use-related stigma: a mixed methods systematic review and synthesis of the literature. *Drug Alcohol Depend.* (2021) 22:108706. doi: 10.1016/j.drugalcdep.2021.108706

32. Neale J, Tompkins CNE, Marshall AD, Treloar C, Strang J. Do women with complex alcohol and other drug use histories want women-only residential treatment. *Addiction.* (2018) 113:989–97. doi: 10.1111/add.14131

33. Grella CE, Greenwell L. Substance abuse treatment for women: changes in settings where women received treatment and types of services provided, 1987-1998. *J Behav Health Serv Res.* (2004) 31:367–83. doi: 10.1097/00075484-200410000-00003

34. Sacks S, Sacks JY, McKendrick K, Pearson FS, Banks S, Harie M. Outcomes from a therapeutic community for homeless addicted mothers and their children. *Adm Policy Ment Health.* (2004) 31:313–38. doi: 10.1023/B:APIH.0000028895.78151.88

35. Stringer KL, Baker EH. Stigma as a barrier to substance abuse treatment among those with unmet need: an analysis of parenthood and marital status. *J Fam Issues.* (2018) 39:3–27. doi: 10.1177/0192513X15581659

36. Bapolisi WA, Ferrari G, Blampain C, Makelele J, Kono-Tange L, Bisimwa G, et al. Impact of a complex gender-transformative intervention on maternal and child health outcomes in the eastern Democratic Republic of Congo: protocol of a longitudinal parallel mixed-methods study. *BMC Public Health.* (2020) 20:51. doi: 10.1186/s12889-019-8084-3

37. Rahman A. Women's empowerment: concept and beyond. *Global J Incorporated.* (2013) 13:8–13.

38. Pederson A, Greaves L, Poole N. Gender-transformative health promotion for women: a framework for action. *Health Promot Int.* (2014) 30:140–50. doi: 10.1093/heapro/dau083

39. Gupta GR. Gender, sexuality, and HIV/AIDS: the what, the why, and the how. *HIV/AIDS Policy Law Review.* (2000) 5:86–93.

40. World Health Organization (WHO). *WHO Gender Mainstreaming Manual for Health Managers: A Practical Approach*. Geneva: World Health Organization (2011).

41. Rottach E, Schuler R, Hardee K. *Gender Perspectives Improve Reproductive Health Outcomes*. Washington, DC: PRB for the IGWG and USAIDS (2009).

42. Government of British Columbia (2005). *Harm Reduction: a British Columbia Community Action Guide.* Victoria, BC: Ministry of Health.

43. Korchmaros JD, Greene A, Murphy S. Implementing trauma-informed research-supported treatment: Fidelity, feasibility, and acceptability. *Child Adolesc Soc Work J.* (2021) 38:101–13. doi: 10.1007/s10560-020-00671-7

44. Gottlieb L. *Strength-based Nursing Care: Health and Healing for Person and Family*. New York, NY Springer (2013).

45. Barker G, Ricardo C, Nascimento M, Olukoya A, Santos C. Questioning gender norms with men to improve health outcomes: evidence of impact. *Glob Public Health.* (2010) 5:539–53. doi: 10.1080/17441690902942464

46. Heymann J, Levy JK, Bose B, Rios-Salas V, Mekonen Y, Swaminathan H, et al. Improving health with programmatic, legal, and policy approaches to reduce gender inequality and change restrictive gender norms. *Lancet.* (2019) 393:2367–77. doi: 10.1016/S0140-6736(19)30656-7

47. Malhotra A, Amin A, Nanda P. Catalyzing gender norm change for adolescent sexual and reproductive health: investing in interventions for structural change. *J Adolesc Health.* (2019) 64:13–5. doi: 10.1016/j.jadohealth.2019.01.013

48. Dworkin SL, Fleming PJ, Colvin CJ. The promises and limitations of gender-transformative health programming with men: critical reflections from the field. *Cult Health Sex.* (2015) 17:128–43. doi: 10.1080/13691058.2015.1035751

49. Hillenbrand E, Karim N, Mohanraj P, Wu D. *Measuring Gender-Transformative Change: A Review of Literature and Promising Practices.* Care USA Working Paper (2015). Available online at: https://cgspace.cgiar.org/handle/10568/76514

50. Muralidharan A, Fehringer J, Pappa S, Rottach E, Das M, Mandal M. *Transforming Gender Norms, Roles, and Power Dynamics for Better Health: Evidence from a Systematic Review of Gender-Integrated Health Programs in Low- and Middle-Income Countries*. Washington DC: Futures Group, Health Policy Project (2015). Available online at: https://www.healthpolicyproject.com/pubs/381_GPMIndiaSummaryReport.pdf (accessed April 19, 2022).

51. Connell R. *Gender and Power*. Palo Alto, CA: Stanford University Press (1987).

52. Kimmel M. *The Gendered Society*. Oxford: Oxford University Press (2000).

53. Cohen SI, Burger M. *Partnering: A New Approach To Sexual and Reproductive Health*. Technical paper no. 3. New York, NY: UNFPA (2000).

54. United Nations Population Information Network (1994). *Report on the International Conference on Population and Development*. Available online at: https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/icpd_en.pdf (accessed April 9, 2022).

55. Tilahun T, Coene G, Temmerman M, Degomme O. Couple based family planning education: changes in male involvement and contraceptive use among married couples in Jimma zone, Ethiopia. *BMC Public Health.* (2015) 15:682. doi: 10.1186/s12889-015-2057-y

56. Abate KH, Belachew T. Women's autonomy and men's involvement in child care and feeding as predictors of infant and young child anthropometric indices in coffee farming households of Jimma zone, South West of Ethiopia. *PLoS ONE.* (2017) 12:e0172885. doi: 10.1371/journal.pone.0172885

57. Levy JK, Darmstadt GL, Ashby C, Quandt M, Halsey E, Nagar A, et al. Characteristics of successful programmes targeting gender inequality and restrictive gender norms for the health and wellbeing of children, adolescents, and young adults: a systematic review. *Lancet Global Health.* (2019) 8:225–36. doi: 10.1016/S2214-109X(19)30495-4

58. Payne S. The health of women and girls: how can we address gender equality and gender equity? *Semin Reprod Med.* (2015) 33:53–60. doi: 10.1055/s-0034-1395280

59. Theobald S, MacPherson EE, Dean L, Jacobson J, Ducker C, Gyapong M, et al. 20 years of gender mainstreaming in health: lessons and reflections for the neglected tropical diseases community. *BMJ Global Health.* (2017) 2:e000512. doi: 10.1136/bmjgh-2017-000512

60. Lo S, Ippolito A, Lopes C, Allotey P, Remme M. *Gender Mainstreaming and Health: Coalescing Lessons, and Catalysing Action for the UN Health Agencies*. Background paper for the expert meeting 'What Works in Gender and Health: Setting the Agenda'. Kuala Lumpur: UNU IIGH (2019).

61. Lopes CA, Allotey P, Vijayasingham L, Ghani F, Ippolito AR, Remme M. "*What Works in Gender and Health?* Setting the agenda". Meeting Summary Report, Kuala Lumpur, Malaysia United Nations University-International Institute for Global Health (2019).

62. Schamp J, Simonis S, Van Havere T, Gremeaux L, Roets G, Willems S, et al. *Towards Gender Sensitive Prevention and Treatment for Female Substance Users in Belgium*. Final report. Brussels: Belgian Science Policy Office (2018).

63. Andrews NCZ, Motz M, Pepler DJ, Jeong JJ, Khoury J. Engaging mothers with substance use issues and their children in early intervention: understanding use of service and outcomes. *Child Abuse Negl.* (2018) 83:10–20. doi: 10.1016/j.chiabu.2018.06.011

64. Nelson LF, Weitzman ER, Levy S. Prevention of substance use disorders. *Med Clin North Am.* (2022) 106:153–68. doi: 10.1016/j.mcna.2021.08.005

65. Tai B, Volkow ND. Treatment for substance use disorder: opportunities and challenges under the Affordable Care Act. *Soc*

Work Public Health. (2013) 28:165–74. doi: 10.1080/19371918.2013.758975

66. Matson PA, Ridenour T, Ialongo N, Spoth R, Prado G, Hammond CJ, et al. State of the art in substance use prevention and early intervention: applications to pediatric primary care settings. *Prev Sci.* (2022) 23:204–11. doi: 10.1007/s11121-021-01299-4

67. Del Pilar Sánchez-López M, Cuellar-Flores I, Dresch V. The impact of gender roles on health. *Women Health.* (2012) 52:182–96. doi: 10.1080/03630242.2011.652352

68. Meyer JP, Isaacs K, El-Shahawy O, Burlew AK, Wechsberg W. Research on women with substance use disorders: reviewing progress and developing a research and implementation roadmap. *Drug Alcohol Depend.* (2019) 197:158–63. doi: 10.1016/j.drugalcdep.2019.01.017

69. Wolfson L, Schmidt RA, Stinson J, Poole N. Examining barriers to harm reduction and child welfare services for pregnant women and mothers who use substances using a stigma action framework. *Health Soc Care Community.* (2021) 29:589–601. doi: 10.1111/hsc.13335

70. Matsumoto A, Santelices C, Lincoln AK. Perceived stigma, discrimination and mental health among women in publicly funded substance abuse treatment. *Stigma Health.* (2021) 6:151–62. doi: 10.1037/sah0000226

71. Thomas N, Menih H. Negotiating multiple stigmas: substance use in the lives of women experiencing homelessness. *Int J Ment Health Addiction.* (2021) 1–20. doi: 10.1007/s11469-021-00560-9

72. Harris MTH, Laks J, Stahl N, Bagley SM, Saia K, Wechsberg WM. Gender dynamics in substance use and treatment: a women's focused approach. *Med Clin North Am.* (2022) 106:219–34. doi: 10.1016/j.mcna.2021.08.007

73. Holmes C. *Bridging the Gap in Women's Substance Use Services: A Trauma-Informed, Gender-Responsive, and Anti-Oppressive Approach* (Doctoral dissertation). City University of Seattle Vancouver BC, Canada site (2021). Available online at: http://repository.cityu.edu/bitstream/handle/20.500.11803/1465/ChristineHolmesCapstone.pdf?sequence=2&isAllowed=y

74. Maeda J. *Design in Tech Report 2019* (2019). Available online at: https://designintech.report/wp-content/uploads/2019/03/dit2019_v00.pdf

frontiers | Frontiers in Psychiatry

TYPE Review
PUBLISHED 19 October 2022
DOI 10.3389/fpsyt.2022.989813

OPEN ACCESS

EDITED BY
Lucy Webb,
Manchester Metropolitan University,
United Kingdom

REVIEWED BY
Sarah Galvani,
Manchester Metropolitan University,
United Kingdom
Sarah Fox,
Manchester Metropolitan University,
United Kingdom

*CORRESPONDENCE
Judith Harwin
j.e.harwin@lancaster.ac.uk

†These authors have contributed equally to this work

SPECIALTY SECTION
This article was submitted to Addictive Disorders, a section of the journal Frontiers in Psychiatry

RECEIVED 08 July 2022
ACCEPTED 30 August 2022
PUBLISHED 19 October 2022

CITATION
Harwin J and Barlow C (2022) The co-occurrence of substance misuse, domestic abuse, and child maltreatment: Can Family Drug and Alcohol Courts play a part?. *Front. Psychiatry* 13:989813. doi: 10.3389/fpsyt.2022.989813

The co-occurrence of substance misuse, domestic abuse, and child maltreatment: Can Family Drug and Alcohol Courts play a part?

Judith Harwin[1*†] and Charlotte Barlow[2†]

[1]Centre for Child and Family Justice Research, Law School, Lancaster University, Lancaster, United Kingdom, [2]School of Justice, University of Central Lancashire, Preston, United Kingdom

This review article focuses on the inter-relationship between substance misuse, domestic abuse, and child maltreatment, especially in the context of care (child protection) proceedings. It reviews what is known about the prevalence and impact of co-occurring domestic abuse and substance misuse on adult and child victims, and the response of criminal and family law and intervention programmes in supporting families to address these problems holistically. Special attention is paid to the role of Family Drug and Alcohol Courts (FDACs), a radical problem-solving approach to care proceedings, which provide integrated interventions to the range of co-occurring problems that trigger the proceedings. Despite clear evidence of the greater harm to children when exposed to these two parental difficulties, the review has found a lack of systematic information on the prevalence of co-occurrence and a lack of effective integrated interventions, including within care proceedings. It argues that the FDAC approach is well suited to respond to co-occurring substance misuse and domestic abuse in care proceedings and it has the potential to break down silos across sectors. However, in the absence of empirical evidence, this premise would need testing. A particular focus of the review has been on efforts to overcome silos in practice, law and policy. Promising initiatives are described in criminal and family law to improve the response to domestic abuse that build on the Domestic Abuse Act 2021, the first dedicated domestic abuse legislation in England and Wales. All of them are based on problem-solving approaches used in other jurisdictions. Despite these initiatives, the review concludes that there remain significant barriers to effectively align law, policy and practice to ensure that domestic abuse strategy recognizes and responds to the overlaps with substance misuse.

KEYWORDS

domestic abuse and violence, child protection, care proceedings, substance misuse, Family Drug and Alcohol Courts, family justice, criminal justice, family policy and law

Introduction

In 1847, the British illustrator George Cruikshank, published his series "The bottle" (1). It had huge impact, charting the corrosive inter-relationship between paternal alcohol misuse and domestic abuse (hereafter referred to as DA). The images and messages were stark, demonstrating what Cruikshank saw as an inevitable and unstoppable decline that ended with the wife being killed by her husband, the death of one of their children, and the father ending up in an asylum. Cruikshank's remedy was the temperance movement, which urged total abstinence. At the time there were no treatments available for substance misuse and child abuse was a private matter. In this regard, Lord Shaftesbury, best known for his reform to child labor, declared in 1875 that "The evils you state are enormous and indisputable, but they are of so private, internal and domestic a nature as to be beyond the reach of legislation and the subject would not, I think, be entertained in either house of Parliament" (2). This cameo captures many of the key elements to be explored in this review- the role of legislative support for intervention in the family when DA and substance misuse coexist; the availability of appropriate family interventions, and the extent to which they are supported by public policy and effective practice.

In this article we examine the inter-relationship between substance misuse, DA and child maltreatment with special attention to the family courts and consider what role they can play in addressing these problems holistically. Particular attention is paid to the potential of family drug treatment courts (FDTCs)[1], known in England and Wales as Family Drug and Alcohol Courts (FDACs), to address co-occurring DA and substance misuse in care proceedings. Care proceedings have a child protection function and determine whether the child can remain with the birth parent or needs alternative permanent care. Unlike ordinary care proceedings, FDACs are designed to address parents' multiple problems *holistically within* the care proceedings, as well as adjudicating on the type of legal order, if any, is needed, and placement arrangements. FDTCs originated in the USA and have been adopted by other adversarial child protection systems, including Victoria State, Australia, and England and Wales, and they have some success in family reunification, at least in the short term. They are a type of problem-solving court which are also widely used in criminal justice in the US to address issues such as an individual's drug offending. Central to all problem-solving courts is the premise that without treating the underlying problems, legal interventions will be ineffective or indeed, anti-therapeutic (3, 4).

The purpose of this article is to bring together in a single paper a broad-ranging and scattered literature by means of a comprehensive review that addresses five main questions:

What is known about:

1. The inter-relationship between co-occurring DA, substance misuse and child maltreatment.
2. The nature and scale of co-occurrence of substance misuse and DA.
3. The response to the co-occurrence of DA and substance misuse within the family and criminal justice system, and in treatment interventions.
4. The potential of Family Drug and Alcohol Courts to play a part in the response to co-occurring DA and substance misuse.
5. What are the implications and recommendations from this review for policy, practice and research?

The review mainly focuses on the experience of England to illustrate the issues, many of which are relevant to an international audience insofar as the co-occurrence of substance misuse and DA affect many societies. With new legislation on DA introduced in 2021 and pilot problem-solving courts being trialed in criminal and family law for substance misuse and/or DA, England is particularly interesting to study.

To address the questions outlined above, the methodology draws on the principles of scoping reviews (5). It therefore addresses a range of broad topics rather than providing in-depth coverage of specific questions, or consideration of the quality of the studies. As is also the case in scoping reviews, key informant sources have been used as well as drawing on the authors' own knowledge and research.

Finally, with regard to terminology, for simplicity, we use "substance misuse" to cover alcohol misuse and drug misuse, and to denote that it is causing harm. Unless specifically referring to studies of intimate partner violence, we use the umbrella term "domestic abuse." When we refer to child maltreatment, it covers all types of abuse and neglect experienced by children. Government guidance classifies witnessing DA as a form of emotional abuse (6) and the Domestic Abuse Act 2021 specifies that children are victims in their own right if they "see, hear or experience the effects of abuse," linked to a parent or relative's behavior.

What is known about the inter-relationship between parental substance misuse, domestic abuse, and child maltreatment?

There is a consensus that the cumulative risk to children increases when parental substance misuse and DA co-exist (7–11), particularly when it is the perpetrator who is engaged in substance misuse (12–15). It increases the risk of serious injury or death (16). Co-occurrence of substance misuse and DA affects parenting capacity and increases the risk of abuse, neglect,

1 In the USA family drug treatment courts are also known as family drug courts and family treatment drug courts.

and subsequent child removal by children's services. It is also associated with return to care and breakdown of reunification (11, 16, 17).

It is easy to understand why risks to the child increase when DA is accompanied by parental substance misuse. As the definition in the Domestic Abuse Act 2021 makes clear, no area of the adult victim's life is unaffected, making parenting more stressful and coping harder. The impacts fall disproportionately on women because men are much more likely to perpetrate DA than women. Coercive and controlling behavior, in particular, is almost exclusively perpetrated by men against women and is a course of conduct aimed at dominating and controlling another (usually an intimate partner) (18, 19). The impacts on adult victims are well documented. DA is associated with depression, suicidal ideation and self-harm, anxiety disorders, phobias, eating disorders, post-traumatic stress disorder and physical injury (12, 20). The more severe the experience of physical and sexual violence, the more likely it is to be associated with substance misuse by the victim, as well as with homelessness, disability, and poverty (20, 21). When a child's mother misuses substances, which itself is associated with inconsistent or harsh parenting (22) and increased risk of child maltreatment (23), DA compounds the risk of failure to protect the child and response to basic emotional needs.

For children, the harms of DA include emotional and behavioral problems, psychological disorders, truancy, bedwetting, mental health difficulties, physical injury, self-harm and use of alcohol and drugs (7, 9, 11, 20, 24–28). These harms can persist into adulthood. Witnessing domestic violence between parents can increase the risk of heart disease, stroke, substance misuse, depression, and suicide attempts (29). Barnett [(24), p. 15] concluded from her literature review for the Ministry of Justice that "living with coercive control can have the same cumulative impact on children as it does on adult victim/survivors, which may contribute to emotional and behavioral problems in children." Barnett also suggests that it would be more accurate to describe children as experiencing DA rather than being "witnesses" or "exposed to DA," as they are victims in their own right. When the child is also exposed to parental substance misuse as well as DA, risks of harm are compounded.

More attention has been paid to investigating the association between alcohol misuse and DA than between illegal drug misuse and DA (14, 30, 31). The association between alcohol misuse and DA has been upheld globally, with one third of women and children affected (32). Whilst there is little evidence to show a causal connection (20, 30, 32, 33), the risks of DA increase when it co-exists with alcohol misuse, as does the severity of physical injuries (33, 34). Rates of physical or sexual violence perpetration are four times higher in men undergoing substance misuse treatment than in the general population (35). Gilchrist and Hegarty (35) also found that among a sample of men in substance use treatment in England, the majority had perpetrated intimate partner violence during their current or most recent relationship.

The association between alcohol misuse and DA is complex and multifactorial (7, 20, 30, 31, 36). For perpetrators, contributing factors can include the disinhibiting effects of alcohol and its impacts on cognitive processes that can result in perceptual biases such as "hostile attribution biases" (32). The risk of intergenerational transmission of patterns of violence and misuse of alcohol can also increase when perpetrators have themselves experienced childhood adversity, especially if it involved violence and abuse (37, 38). Furthermore, female victim-survivors may use alcohol to cope with DA (9, 20, 39, 40) or other traumas, which, as already noted, has been associated with reduced attention to children's needs (7, 30, 41). Perpetrators may use alcohol as a way of controlling their partners (20). Interactions between intimate violent partners are particularly complex where both partners are substance dependent (42). They may threaten to report the child's mother to children's social care services to silence her. Fear of child removal by the state is one of the most potent ways in which domestic abuse can play out in families, causing delay in seeking help for the adult and child victim and it is exacerbated by maternal substance misuse.

The evidence on the increased risk of child neglect and abuse when DA and substance misuse co-occur is strong. Moreover, child maltreatment also increases the risk of experiencing DA in adult life (43) so there is a transgenerational link. The practice and policy implications are clear. Victim survivors, perpetrators and children need to be able to access targeted interventions which can respond to both issues in an integrated and timely way.

What is known about the nature and scale of co-occurrence of substance misuse and domestic abuse?

There is little systematic information on the prevalence of co-occurring DA and substance misuse, but it is recognized to be an international problem (31, 36, 40, 44, 45). In England and Wales national evidence is limited on the co-occurrence of substance misuse and DA, although secondary data analysis of the Adult Psychiatric Morbidity Survey (APMS) and the Crime Survey for England and Wales (40, 46) both uphold the association. However, the Crime Survey excludes coercive and controlling behavior[2] and therefore it is likely to underestimate

2 As of 2022, questions on coercive and controlling behavior will be included in the survey. https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/redevelopmentofdomesticabusestatistics/researchupdatenovember2021.

the scale and nature of the problem[3]. Moreover, the association is complex. Analysis of the APMS found the severity of physical and sexual violence increases the likelihood of victims' misuse of drugs and alcohol (21). These victims, mainly women, were more than twice as likely to misuse alcohol, and eight times more likely to be drug dependent than women who had little experience of violence and abuse. Focusing on a comparison of mothers and women without children, a study of the electronic health records of women attending addiction services found that mothers were almost five times more likely to have experienced DA over their lifetime than women without children (47). Mothers with children in care were more likely to report DA than those who were still living with their children. Co-occurring DA and parental substance misuse featured most prominently in a longitudinal study when the parents were part of a small sub-group described as "poly-diversity" (26) who had the most severe problems.

As regards children, in the view of the Children's Commissioner there is a dearth of data on co-occurrence, and it is not a straightforward problem to measure (48). However, it is a sizeable problem. In a typical class of 30 children, four will live in a household with DA *and* parental substance misuse *or* severe parental mental ill health (49). There is also a troubling lack of data on the prevalence of co-occurring DA and substance misuse in children's services and in the family courts because this information is not routinely collected in this way. These issues with data extend to the police recording of DA offenses, as the Police National Computer (PNC) cannot link DA and alcohol or substance misuse, meaning that the extent of co-occurrence is unknown.

Taken together, the available evidence suggests that there is a shortage of reliable information for policy-makers, service providers and researchers on which to plan and deliver services that can respond in an integrated way to co-occurring substance misuse and DA.

What is known about the scale of domestic abuse as a single issue?

The scale of DA as a single issue in England and Wales is formidable. The Crime Survey for England and Wales estimated that 2.3 million adults aged between 16 and 74 experienced DA year ending March 2020 (20). Over the same period an estimated 5.5% of adults aged 16 to 74 experienced DA in the year prior to the survey (50). The victim was female in 73% of DA related crimes. Over 40% of victims have at least one child under the age of 16 living in their household (20). According to the Children's Commissioner, in a typical class of 30 children, two will live in a household where DA is present (49).

The impact of DA on children's social care is considerable. This is demonstrated by a range of figures brought together by the Independent Review of Children's Social Care, set up in fulfillment of the Government's manifesto to review the children's social care system (51). Violence between parents is the most common factor identified at the end of social work assessments for children in need[4] while DA (42%), parental mental ill-health (28%), drug (24%) and alcohol (18%) use are frequent factors in incidents involving serious injury or death, especially for children aged under one. DA was present in 64% of families where child neglect was the issue in serious case reviews which are carried out when children have died or been seriously injured (16).

DA is also a major issue in private and public law proceedings. Allegations or findings of DA are present in between 49%−62% of private law family proceedings where the issue is about who the child will live, or have contact with (52, 53). DA also plays a prominent part in care proceedings and in recurrent care proceedings. A national study of all care proceedings between 2007 and 2016 (175,280 children) found that DA was one of the triggers to the proceedings for more than half (56%) of the children (54). Moreover, DA also significantly increased the probability of maltreatment for children returned home on a supervision order from 18% to 55% in the 4-year follow-up. The importance of DA also emerged very strongly from a national study of mothers who have recurrent care proceedings, for the same or a new child. Of the 11, 191 mothers involved in recurrent care proceedings between 2007/07 and 2015/16, DA was a key concern in 65% of the cases (55). These mothers were also highly likely to have had a parent with DA issues, underlining the destructive transgenerational continuities. As regards fathers involved in recurrent care proceedings, a national study found that the most common child welfare concerns were substance misuse, DA and poor mental health (56). The repercussions of these issues are significant. Data from care proceedings and child protection cases indicate that up to 60% of children who are fostered, adopted or in other out of home care arrangements may have been victims of DA (16). In short, DA significantly impacts on the family court and plays a prominent role in child separation from parental care, intergenerational transmission, substitute care services and failed reunification (17). These are deeply troubling

3 8.1% of the 1.3 million women reporting on their most recent episode of DA for the Crime Survey for England and Wales, stated that they were under the influence of alcohol, with lower rates (1.7%) under the influence of drugs (46).

4 Under s.17 of the Children Act 1989, children are deemed to be children in need if [a] they are unlikely to achieve or maintain or to have the opportunity to achieve or maintain a reasonable standard of health or development without provision of services from the Local Authority; [b] their health or development is likely to be significantly impaired, or further impaired, without the provision of services from the Local Authority; [c] they have a disability.

statistics, but they do not present the full picture because of limitations in what data can be, and is, collected. Crucially, each of these three national studies of care proceedings found that substance misuse was a prominent concern, amongst issues such as mental health difficulties, relationship problems, lack of social supports, deprivation, housing problems and non-engagement with services.

However, there is a lack of literature available which specifically explores the co-occurrence of DA, substance misuse and child maltreatment within the context of children's social care and care proceedings. This severely limits understand of the issues and the possibility of developing tailor-made services that recognize the interconnections and complexity of the issues. The largest, and most recent profiling of cases involving parental substance misuse in an English local authority, found that of the 299 children referred to children's social care, 42.8% were also exposed to DA (57). Risk, or actual abuse and neglect, were the most frequent reasons for referral. An earlier study of all children referred to children's services in four authorities found a complicated relationship between parental substance misuse, DA and child outcomes (58). Illegal drug misuse was more likely to result in the permanent removal of infants at birth than alcohol misuse following care proceedings. By contrast, toddlers and older children affected by parental alcohol misuse were more likely to remain at home with their birth parents and to be subsequently exposed or re-exposed to DA. As a result, their outcomes at follow-up were worse than for infants removed at birth. Not only does this suggest that alcohol misuse was perceived by social workers to be less harmful than drugs, but the social workers also revealed that it was particularly difficult to work with parents on their alcohol problems if one of the parents, usually male, was violent, as "professional fear (for their own safety) kicked in."

Some of the studies on care proceedings also indicate the possibility of co-occurrence but as in children's social care, data on prevalence is often presented separately for each issue. For example, a study of court records of 386 care proceedings cases (682 children) found that maternal DA (51.1%) was ranked amongst the most common problems, with drugs featuring in 38.6% of the sample, and alcohol abuse in 25.3% (59). As already noted, DA also features significantly amongst mothers who return to court for further care proceedings, either for the same or a new child (55). DA and substance misuse are also linked to non-engagement with children's social care, and this may help explain why risk of recurrent proceedings increased when DA was associated with substance misuse (55, 59). Furthermore, the financial costs of DA are significant, with the annual cost in the UK equating to ~£66 billion (60, 61).

These interrelationships between substance misuse, DA and child maltreatment, as already noted, have tended to be analyzed as correlates rather than as interrelated and they are viewed as part of a widely accepted picture of a "toxic trio" comprising mental health difficulties as the third element. (The other two are substance misuse and DA). That approach has only recently been challenged (62). From a systematic review of twenty studies, the authors have argued that evidence of this association lacks rigor. This is because of a lack of comparison groups, failure to look at wider contextual factors such as child age, ethnicity and socio-economic status, the quality of interventions, and consideration of theoretical explanations of the nature of these inter-relationships. Skinner and colleagues call for a change in the discourse, which they argue has had a disproportionate and unhealthy influence on the child protection and family justice system.

A starting point would be to make use of national largescale administrative datasets, such as those held by Cafcass[5] and the Ministry of Justice, for all children subject to care proceedings, to investigate the prevalence of co-occurring parental substance misuse and DA, and their relative importance in "significant harm"[6] and the initiation of proceedings. However, at present, court records do not have any flags for DA, substance misuse and mental health problems, or agreed definitions of each issue. This means that we are dependent on research studies to provide estimates of the nature and strength of the associations between the different parental issues and their impact on child harm, and the likelihood of triggering care proceedings. One promising approach to achieving a better understanding of how substance misuse and DA may cluster, and the possible different permutations, is to use latent class analysis (LCA). LCA is a statistical procedure which divides groups of people with common characteristics into clusters, or sub-groups (63). It enables fine-grained information on patterns of associations, which can then be used to provide better targeted interventions. For example, using LCA, Broadhurst et al. (55) discovered in their study of recurrent care proceedings, that DA was found in different combinations, some with, and others without substance misuse. They concluded that identification of these sub-groups provided a much better understanding of the issues than the broad term "toxic trio" and could help generate interventions tailored to the needs of the particular sub-group.

Drawing together the available evidence, we can conclude that DA, child safeguarding and substance misuse are related issues because of their collective damaging effects on children and women (27, 36). This is not to say that men are not victims of DA or affected by their female partner's substance misuse. But the risks are higher for women and children. The increased recognition of the harms associated with DA is evidenced by the flurry of policy development aiming to tackle the issue.

5 Cafcass: the Children and Family Court Advisory and Support Service.

6 s.31 (2) Children Act 1989.

The response to domestic abuse and substance misuse in criminal and family law and policy

Criminal law

Many policy interventions to date in England and Wales related to DA and associated issues such as substance misuse, have focussed on criminal law and justice interventions. Over the last decade there has been an expansion of DA law as awareness of the problem has grown and recognition that the state must intervene in what for many years was seen as a private problem. It has included Section 76 of the Serious Crime Act 2015, criminalizing coercive and controlling behaviors within intimate or familial relationships, and the more recent Domestic Abuse Act 2021. This is the first dedicated legislation on DA in England and Wales and it contains many welcome features to better protect victims and their children, including the creation of a Domestic Abuse Commissioner. For the first time the legislation creates a statutory definition of DA in England and Wales, including the addition of economic/ financial abuse. Non-fatal strangulation and suffocation, which increases the risk of being killed by a perpetrator sevenfold is also a new offense under the Act and punishable by up to 5 years in prison[7]. Notably however, the Domestic Abuse Act 2021 does not create a new offense of domestic abuse. It provides however, a new civil Domestic Abuse Protection Notice/ Order (DAPN/DAPO) and places the Domestic Violence Disclosure Scheme (DVDS) on a statutory footing. DAPNs are intended to give victim-survivors and children an additional protection measure immediately after a DA incident, providing breathing space or "space for action" (64). DAPOs will be more flexible in duration (20) and, as well as specifying prohibitions, will have a positive function, for example, requiring perpetrators to attend behavioral change programmes or substance misuse programme. Breach will be a criminal offense but with the option of a civil contempt of court that takes into account public interest and the victim's views. Crucially, in terms of the potential to break down silos, it will be possible for the family, criminal and civil court to make a DAPO of their own volition, even if the issue is not DA related. They are to be piloted before being introduced across the UK.

The DVDS, better known as Clare's Law, gives police the right to disclose information about past DA convictions to the public or to a current partner (65). However, it has been argued that DAPOs can often lead to the downgrading of DA in criminal justice terms. The dual regime of civil and criminal protective orders has led to an increase in charges for breaches of protective orders after an allegation of DA. Whilst this is to be welcomed, Bates and Hester (66) express concern that an increase in charges for breach, may obscure a corresponding drop in charges for substantive offenses that are charged for DA. This therefore limits their potential capacity to keep women and children safe. Furthermore, DVDS comprises two aspects, "a right to ask" (an application can be made by any member of the public to apply to the police for information about whether a person has a history of domestic abuse) and a "right to know" (the police act proactively to disclose information to protect a potential "high-risk" victim from harm from their partner if that partner has a known history of abuse). However, Barlow et al. (67) identified that victim-survivors can often feel disempowered and responsibilised by such schemes and questioned their protective and preventative value.

More positively, the Domestic Abuse Act 2021 recognizes children as victims in their own right and places new duties upon local authorities to assist with housing to ensure the safety of the child and parent and to provide support to victims and their children fleeing an abusive relationship. This enhanced statutory duty upon local authorities is to be welcomed as DA victims and their children are at high risk of housing instability and homelessness (68). Moreover, the types of specified support are wide-ranging. They include counseling and therapy, housing-related advice and support, communicating with other health and social care providers, specialist support for victims with complex needs and/or protected characteristics and helping victims to recognize the signs of abusive relationships to prevent re-victimization[8]. However, the duty is limited to victims and their children who have fled their home and are living in refuges and other specified types of accommodation and to authorities classified as "tier 1"[9]. Moreover, children's services are not a housing provider and there is a serious shortage of suitable accommodation (69).

A further example of this emphasis on criminal justice approaches is the introduction of Specialist Domestic Violence Courts (SDVCs) across England and Wales approximately two decades ago. A key rationale for their introduction was to reduce victim withdrawal/ retraction from the criminal justice process, a common feature of many DA cases (70), and to improve victim satisfaction (71). Basic features of SDVCs include identifying DA cases and thereafter "fast tracking" them, having an advocate present to support victims, and a specialist police officer to provide information in court. However, despite positive intentions, SDVCs face notable issues. First, SDVCs in England and Wales lack key powers and resources, including the option to monitor offenders in the community. Second, Cook et al.'s (71) evaluation suggested that the establishment of SDVCs was not necessarily leading to fewer victim retractions, despite being a key rationale for their introduction. Third, despite DA continuing to rise in England and Wales, conviction

7 s.75A and s.75B Domestic Abuse Act 2021.

8 Part 4, Domestic Abuse Act, 2021.

9 Tier one local authorities include county councils, the Greater London Authority, and metropolitan and unitary authorities.

rates continue to drop (72). This means that at a time when more victim-survivors are reporting DA, the justice system is securing fewer convictions (73). Finally, although SDVCs signpost victim-survivors to other services, they do not provide interventions for DA and substance misuse holistically within the context of the court intervention itself (73). This is despite the fact that Cook et al. (71) found that victims were more likely to retract when the defendant had committed the offense following alcohol use. This highlights issues with silo-working. In sum, although SDVCs have the potential to improve victim satisfaction, they do not provide a holistic, whole family response to effectively deal with co-occurring DA and substance misuse in their current form.

Relatedly, the Ministry of Justice (74) is developing up to five criminal problem-solving court pilots, to address (i) substance misuse offenders facing custody (ii) perpetrators of DA and (iii) female offending. The first two problem solving courts for drugs and alcohol are to be piloted as part of the government's 10-year drug strategy *From Harm to Hope* while the court for female offenders with complex needs will also include measures to address substance misuse (75). Problem solving courts provide an alternative to traditional courts by targeting a specific client group, offering multidisciplinary assistance within the court process, judicial monitoring, a transparent, procedurally fair process and in the criminal context, "graduated incentives and sanctions" (76, 77). Problem-solving criminal courts originated in the USA, and they are used in a number of countries such as New Zealand, Australia, Canada, Scotland and Norway. Evaluation studies show that re-arrest and re-offending rates are lower than those of matched drug offenders going through ordinary criminal court and there are associated cost savings (78–80). These new Ministry of Justice pilot courts are to be welcomed, but it is noteworthy that they are being set up as single-issue concerns, rather than as dealing with interconnected and overlapping problems.

However, despite decades of the creation of more criminal laws and criminal justice policies related to DA [what Goodmark (81) terms "the criminalization thesis"], two women a week are still killed by a current or former partner in the UK (72) and the numbers of people experiencing DA remains persistently stubborn. The question therefore remains as to what this flurry of legislation has achieved for safeguarding victim-survivors and their children? Furthermore, much work related to safeguarding victim-survivors and their children more broadly has been developed in silos, with little emphasis on holistic or whole systems approaches (82). Such issues also translate to practice in family law.

Family law

The Adoption and Children Act 2002 was the first to recognize in statute that witnessing DA could cause actual or likely significant harm. It widened the definition of "significant harm" set out in the Children Act 1989 to include, "impairment suffered from seeing or hearing the ill-treatment of another"[10]. Despite this legal landmark, progress in responding to DA in the family justice arena has been slow and patchy. The highly influential Ministry of Justice *Harm Panel Report* (83) shone a spotlight on the inadequate professional response to DA in private law proceedings and put forward a raft of recommendations for wide-ranging policy, system and practice changes. Many of the barriers it cited were well known. They included false accusations of parental alienation (84), systems abuse (85, 86), and perpetrators using the family court as a site of coercive control (86). In addition, and crucially for the present review, the Panel report highlighted the obstacles to reform resulting from working in silos with poor coordination with other courts and organizations dealing with DA; an adversarial process; a lack of resources; insufficient attention to assessment of risk and child safeguarding and an inability to hear children's voices.

One way in which the issue of silos is to be addressed is via the creation of pilot Integrated Domestic Abuse Courts (IDACS). The intention is to trial a "one family, one judge" approach which, in some family and criminal proceedings involving DA, are to be heard by the same judge who is authorized to hear both family and criminal matters (74). The aim is to reduce silos between the two jurisdictions and thereby prevent victims being retraumatised by having to present their evidence more than once. At the same time, to promote a less adversarial and more investigative process, two pilots in North Wales and Bournemouth (87, 88) are being set up to deal with DA allegations in child arrangement disputes in private family law cases when parents are separated, especially when coercive control is a key issue. They will run until 2024.

There are a variety of IDACs internationally based on the "one family, one judge" approach but evidence of their effectiveness is considered weak (89). The most ambitious IDACs have the case heard by a judge who is authorized to hear criminal, family (including child protection) and potentially civil proceedings, as for example in New York. Little detail is available at present on the English schemes, but important considerations of their potential contribution include the availability of judges authorized to hear both family and criminal cases and families' reactions to the dual mandate. Furthermore, there is limited evidence to suggest that IDACs will provide the holistic approach required to deal with co-occurring substance misuse and DA, to which we shall return later in the review.

There has been no equivalent to the *Harm Panel Report* in public law proceedings. Moreover, the crossover between private and public child proceedings has received little attention (90). More broadly, family justice policy has been insufficiently integrated with criminal policy, despite the obvious overlaps.

10 s. 120 Adoption and Children Act 2002.

For example, in response to the Home Office's consultation on the development of its domestic abuse strategy, an informal alliance of organizations (91) called for a discrete section on the family court in the strategy to signal its important role. Much existing work with perpetrators, particularly court sanctioned programmes, have also faced criticism, both in terms of a lack of reduction in DA (particularly coercive control) and a lack of integrated support for perpetrators (92). The *Harm Panel Report* called for a review of DA perpetrator programmes to ensure they address child safety and welfare needs when DA is an issue (83).

The response to DA and substance misuse in care proceedings has scarcely begun to be charted, though studies of parental perspectives have charted the profoundly damaging impact of the adversarial process on mental wellbeing since 1998 (93, 94). More than two decades later, parents are describing the same issues in their experiences of care proceedings (90). Despite having their children returned to their care, the parents at the end of the court case described the care proceedings as "inhumane" and "belittling" and felt that they were made to feel like "criminals." In their view, the court process exacerbated their mental health difficulties and stress levels and revictimized them, undermining their perceptions of access to justice. When asked to identify how care proceedings could be improved, parents prioritized the need for a more effective response by the court to DA. With evidence to show that one in three or four mothers nationally risk return to court for further care proceedings within seven years (55), there is a vital need to find alternative ways for the courts to respond to DA and parental substance misuse, and more specifically in an integrated way.

Hester (82) suggests that despite the positive development of much work to reduce intimate partner violence, there remain difficulties and frustrations inhibiting safe outcomes for victim-survivors of DA and their children. She identifies some of the disconnections, tensions, and contradictions evident in professional discourse and practice across three different professional practice arenas: domestic violence (all the agencies dealing with victims and perpetrators), child protection (social work) and child contact (family courts). She concludes that these arenas are especially difficult to bring together in a cohesive and coordinated way because each is essentially "on a different planet." She asserts that such a fragmented "three planet model" precludes effective responses to IPV, and indeed may result in outcomes likely to be counter-productive for individuals interacting with them. This fragmented approach is even more evident when substance misuse and mental health are added into the mix, with a lack of joined up working evident in the support provision provided in such contexts. Thus Hester (82) argues for systemic change, orientated toward a cohesive, coordinated, and unified approach across these planets, centring gender both as a feature of DA and associated issues such as substance misuse, and as a feature of service delivery to ensure more effective policy intervention. Similar issues with siloed working have been identified in treatment offerings for DA and substance misuse (30, 44).

Interventions for co-occurring substance misuse and domestic abuse

The international evidence indicates a lack of effective interventions for co-occurring substance misuse and DA (35, 95–99). As both issues are over-represented in households in England where parents are on benefits, the Department of Work and Pensions commissioned a review to identify interventions addressing both substance misuse and "parental conflict"[11] (14). The authors found few. Moreover, they questioned the effectiveness of current models of treatment in a family justice or children's social care setting. They found that psychoeducational and cognitive behavioral treatment programmes predominate, especially within children's social care and the family court, with two thirds of referrals to perpetrator programme referrals coming from Cafcass or children's social care (100). In their view, reliance on programme completion as a means of reducing risk, given the limited evidence base, is a cause for concern. The Independent Review of Children's Social Care also highlighted the lack of research evidence on effective interventions for substance misuse and DA in children's social care settings (51). There is a dearth of community based early intervention integrated services, or services targeted at children or fathers (95, 98, 101). Stover (99) noted that recidivism in most perpetrator and partner-focussed treatments was ∼30% within 6 months, regardless of the model, and more recently focused on the need for effective programmes to work with perpetrators in their capacity of fathers (99). Few treatment interventions have been evaluated (102).

As professional awareness has grown regarding the destructive impacts of co-occurring substance misuse and DA, new approaches are being piloted and evaluated in community settings. For perpetrators, a 60-month programme called "Advance" (96) is testing a 14-week intervention that addresses the substance misuse and DA in an integrated fashion in the health sector. At present, this group of adults rarely access treatment, despite the higher rate of partner abuse. Preliminary results are encouraging. The feasibility study found that, compared to men who received a substance misuse intervention only, men who also received the Advance Programme intervention, reported higher levels of satisfaction, as did the staff (103). In children's social care services, a community programme, Family Safeguarding Hertfordshire (FSH) has aimed for systemic reform and it has been adopted

11 Defined as 'conflicts that occur between parents/carers that are frequent, intense and poorly resolved' but fall below the level of domestic abuse.

by other local authorities due to encouraging results. The intervention comprises a partnership that includes the police, health (including mental health), probation and substance misuse services. Key elements include specialist workers with DA, substance misuse and mental health expertise joining teams and training in motivational interviewing. The evaluation found that the inclusion of adult specialist workers in the children and family teams were particularly beneficial, bringing multidisciplinary expertise to the families (104). The families were positive about the help they received and fewer days were spent in care than before FSH was introduced. In Australia, a protocol has been approved to test the effectiveness of an integrated approach to tackling co-occurring substance misuse and DA. This protocol, known as Kody, is also a whole family approach and builds on the existing evidence of the Kody programme (95).

The search for effective integrated interventions is essential and potentially stands to reduce the very high costs of programmes that fail or do not reach the target groups. So the new initiatives outlined above are encouraging, but they are few and far between. Furthermore, as previously noted, there is widespread agreement in the international literature that most services are delivered in silos and that an integrated approach is needed, which addresses whole family needs holistically (30, 33, 52, 97, 102).

The real question is why there are so few integrated services available, given consistent evidence on the strength of the association between DA and parental substance misuse. Explanations for this situation are multifactorial (45, 102), including structural and systemic factors, policies that militate against an integrated holistic response, lack of resources, a lack of professional expertise and the need for a theoretical underpinning to bring together the contribution of different professionals from police to family justice practitioners. In England, as austerity has bitten harder, increasing poverty and family vulnerability have coincided with a prolonged decline in substance misuse and DA services for victims, perpetrators and children with a significant lack of funding (105–107). At the same time as families became more isolated during Covid-19, there was a large rise in demand for help from agencies dealing with DA. On average calls and contacts to the National Domestic Abuse Helpline increased by 49% for the week commencing 6th April 2020 compared to pre-lockdown comparisons (108). Furthermore, heavy drinking and alcohol specific deaths rose significantly during the pandemic (109). Between March 2020 and March 2021 there was a 59% rise in the number of people who reported that they were drinking at increasing higher risk levels.

So, it is clear that despite the significant policy and legislative developments in recent years, DA remains a significant issue. Existing treatment and policy initiatives are not reducing DA and, of particular pertinence to this article, they are not addressing the co-occurring issue of substance misuse holistically. The significant costs of substance misuse[12] and DA to society, as well as the current and future costs to the individual and family, make it imperative to find effective and sustainable interventions that can break the cycles of intergenerational harm associated with both parental substance misuse and DA. Nowhere is this more important than in the context of private and public law proceedings where there is a vital need to find alternative ways for the courts to respond to DA and parental substance misuse, and more specifically in an integrated way. Although IDACs offer promising potential, in their current format they do not appear to address the issue of co-occurrence of DA and substance misuse holistically. Given the association between these two problems, Family Drug and Alcohol Courts (FDACs) may provide a unique opportunity of dealing with DA as well as substance misuse when care proceedings are initiated.

What is the potential of FDACs to provide an integrated response to co-occurring domestic abuse and substance misuse in care proceedings?

FDAC was first introduced in England in 2008 to break cycles of harm linked to parental substance misuse. Adapted from an American model of family drug treatment courts, FDACs offer an alternative problem-solving approach to care proceedings, aiming to help parents with complex problems of substance misuse, mental health, DA, housing and relationship difficulties within the proceedings. Despite its name, the FDAC approach is built on the premise that substance misuse is never the only issue and that problems need to be tackled holistically. A key aim of FDAC is to rebuild parenting capacity and thereby facilitate safe family reunification. If parents are unable to successfully address their multiple problems within the child's timescales, alternative permanent homes for the children.

To date, FDAC evaluation outcomes are promising, particularly in respect of the higher rates of family reunification and substance misuse cessation following FDAC involvement compared to ordinary care proceedings (111). This finding is supported by a meta-analysis of international evidence (112) and cost benefit analysis of FDAC, that indicates savings to the public purse (113). These factors have led to investment by the Department for Education (114) and the Welsh Government in the expansion of FDACs. The former President of the Family Division (Head of Family Justice) endorsed FDAC (115) and the current President wishes to see an FDAC in all designated family

12 Illegal drug use costs society approximately £20 billion per year (110) https://www.gov.uk/government/publications/review-of-drugs-phase-one-report/review-of-drugs-summary#part-one---the-illicit-drugs-market.

judge areas in England and Wales (116). Parents appreciate FDACs for their fairness, transparent process, respect, and the intensive support they receive and their compassionate approach (117).

FDACs are underpinned by a theory known as therapeutic jurisprudence (TJ) (118, 119). Its central tenet is that the court itself can be an agent of therapeutic change, and that without exploring and responding to underlying causes of the problems, the role of the court is limited and unlikely to achieve lasting change. TJ draws on a wide range of disciplines to inform its approach, including psychology, motivational theory, social work, and restorative justice. It has led to a very distinctive set of practices that use the authority of the court to bring about change (120–122). Unlike ordinary care proceedings, FDAC judges meet fortnightly with the parent without lawyers being present to help motivate the parent, address problems holistically, and receive information on parental progress from the FDAC team and parents' key worker. These non-lawyer hearings comprise the therapeutic component of FDAC in the court setting and provide a crucial opportunity for parents to speak directly to the judge. The FDAC multidisciplinary team, which may include social workers, psychologists, substance misuse workers and domestic abuse specialists, is crucial to the delivery of the tailor-made help package to parents. This integrated package is developed jointly with Children's Services and the court. There is no equivalent to the FDAC team in ordinary care proceedings. Furthermore, unlike ordinary care proceedings, FDACs are non-adversarial and collaborative.

Although FDAC is not a dedicated DA intervention, profiling by FDAC providers based on self-report suggests that it is prevalent in the majority of FDAC cases. FDAC teams address DA in their holistic support offer, and as already noted, a number have specialist DA workers. The unique and integrated support offered by FDAC teams makes them well placed to deal with care proceedings where DA and substance misuse co-exist, as this kind of truly holistic approach is not currently available through interventions such as criminal courts or IDAC's. However, to date there are no descriptions of the way in which FDAC responds to DA, or of its impact. Nor is there evidence from American FDTCs on the prevalence of co-occurring substance misuse and DA, the interventions offered, or the outcomes for parents and their children[13]. Finally, there is a lack of evidence on whether FDTCs liaise and coordinate with criminal family violence courts as recommended (123). These are all issues that need to be tested and examined further in the future.

The arguments about the potential contribution of FDACs in addressing DA are therefore best made at present on the basis of the goal of family policy to keep families together wherever possible; the lack of effective DA interventions within child protection and family justice (98), especially for families who face structural inequalities and multiple needs (19). Additionally, particularly relevant to this article, the overlap in the treatment needs and recovery goals as between parental substance misuse and DA and superior outcomes of FDACs compared to ordinary care proceedings in relation to sustainable reunification and substance misuse cessation (111).

Parents with substance misuse and DA both face the problem of stigma, shame, and fear that disclosure will lead to child removal, with gender and maternal identities a key issue (124, 125). Both problems leave parents feeling powerless (126) with very low self-esteem and little sense of agency and self-belief (127). These problems are exacerbated by societal stereotypes of blame and censure for these mothers. If parents are to be able to address both these issues, they need help to understand and address earlier patterns of behavior. To this end, the FDAC multidisciplinary team provides intensive support, links parents to community services, and helps with practical problems during the court process. Because of the evidence on the impact of early childhood adversity, FDACs offer a trauma informed treatment approach as a key element in recovery. This approach is particularly relevant for parents going through care proceedings because their own life experiences frequently make it particularly difficult to engage with professionals, whilst the adversarial nature of the proceedings further creates mistrust and antagonism (117).

Looking to the future: Challenges and opportunities

FDAC is not a magic bullet, but it has the potential to address the co-occurring problems of DA and parental substance misuse in an integrated way at a crisis point. Moreover, whilst until recently there has been no robust way of evaluating judicial therapeutic behavior and interactional style in the courtroom to see how far it helps explain outcomes, a standardized tool is now available that will enable researchers to measure the components (122). Although the tool is limited to the interactional style of judges and has been developed in a criminal justice context, it provides an important way forward to test the components and values of TJ empirically. Additionally, a Protocol to undertake a Campbell collaboration systematic review has been funded to examine FDTCs' parental psychosocial and legal outcomes beyond parental substance misuse and child reunification (128). Previous lack of such reviews has been a significant limitation in being able to evaluate their potential contribution.

Despite the potential of FDACs to provide an integrated approach to DA and substance misuse in care proceedings, the problems are so widespread that it is care proceedings in general which need to change to provide the compassionate and more effective problem-solving approach found in FDAC. The same point has been made in the US context and Australia (129). For this reason, international TJ practitioners and theorists are working toward mainstreaming the approach into criminal law (120). In England and Wales, the Independent Review of

13 Personal communication. Caroline S Cooper. Key Informant.

Children's Social Care has recommended that the compassionate investigative approach found in FDAC should be extended to ordinary care proceedings in the family court (51). To this end, a new Care Proceedings Reform Group has been appointed by the President of the Family Division to make recommendations on how this can be achieved.

Changing the culture of the family courts would be a major step forward. But it would not be enough. Family courts also need to offer intensive help during proceedings and to ensure that such help continues to be available after proceedings end, given the fragility of reunification when parental substance misuse is involved. Moreover, private and public law care proceedings do not take place in a vacuum. The ever harsher macro-economic and social climate places particular burdens on disadvantaged families and repeated calls for major investment in social care reform have not been addressed. The possibility of legal aid for litigants in person in private law family proceedings remains unresolved, more than 2 years after it was first proposed. At a local level in the field of social care, research has shown that there is an inverse relationship between the amount of support provided by local authorities and the level of deprivation. The more disadvantaged the area, the less support is available (130). Furthermore, continued cuts to DA services and refuge space mean that accessing support, particularly when criminal justice intervention is not desired by the victim-survivor, is not a guarantee (69). There are also greater restrictions on available refuge space for victim-survivors who misuse substances, as many DA refuges have zero tolerance policies for alcohol and drug-taking (69). Despite this gloomy appraisal of obstacles to reform, there are also clear opportunities. Introducing multidisciplinary teams based in local schools and community settings, including DA and mental health workers, may make it easier for parents to access holistic support in a non-stigmatizing way, as proposed by the Independent Review of Children's Social Care (51). How far this proposed service will help reduce the number of cases coming before the family court will not be known for many years and will depend on the skill of the workforce, the investment in the scheme and the supply of services and the wider macro-economic context.

What is clear however, is that at present there is a lack of evaluated effective services for children and parents with DA and substance misuse difficulties, either singly or in combination, as well as a serious gap in availability. There is also a significant data deficit. As already noted, at the present time it is not possible to say how many children are affected by co-occurring DA and substance misuse in care proceedings or in private law proceedings. There need to be more sophisticated ways of studying the scale and pattern of domestic abuse when co-existing with parental substance misuse than are currently available. More attention needs to be paid to the response to DA and substance misuse in public law proceedings and the family court remains insufficiently integrated into policy around crime. Ultimately, more family support is vital, before, during and after proceedings. Recovery from DA, mental health problems and substance misuse, whether singly or in combination, require highly skilled and intensive support over time. We need to better understand the ingredients of such support and what works for which parents and why. FDACs provide one such opportunity to examine this issue.

Discussion and implications

This review has examined the inter-relationship between co-occurring substance misuse and DA and their impacts on children. It has considered the availability of integrated family interventions and paid particular attention to the family court and the role it can play in addressing the inter-relationship between substance misuse and DA, including discussion of the potential of FDACs to deliver a holistic intervention. Finally, it has examined how far there is a coherent cross-cutting criminal and family legal and policy framework to underpin practice and to overcome the wellestablished criticism by Hester (82) that responses to DA have been fragmented and delivered in silos. With little change in this strategy since Hester's time of writing, her work remains pertinent.

There are three key findings of this review that address our five main research questions. Each has associated implications, which we shall summarize in turn.

1. A first key finding of this review is the lack of information on the prevalence of co-occurring substance misuse and DA at national population level and within the child protection and family justice arenas. It is simply not possible to report on the scale and pattern of co-occurrence, despite the clear evidence that co-occurrence of these two problems is more harmful to children than when only one issue is present. This is a data deficit issue, but it also has profound implications for designing tailor-made interventions that address both issues seamlessly and for tracking child and parent outcomes to know which interventions work and for whom. The data deficit also reflects the continued predominance of thinking in silos and seeing the two issues as separate rather than, as the evidence shows, overlapping and interconnected. This has significant safeguarding implications, as the potential harm to children increases when their parents are affected by both problems.

   The challenge of addressing the data deficit is significant in child protection and the family court because at present there is a more basic problem. The databases do not flag DA or parental substance misuse. This is therefore a first essential issue to address. While the importance of improving intelligence on DA in private law proceedings has been recognized (52, 53), attention to this issue is needed in public law proceedings. Despite this

major obstacle, there are promising research approaches to exploring co-occurrence. Through methodologies such as latent class analysis, more nuanced understandings are emerging of the patterns of co-occurrence over time that can then be used to identify best practice, but also highlight areas of policy that need to be addressed.

2. Our second main finding relates to the alignment between criminal and family justice legislation. Notably the Domestic Abuse Act 2021 specifies clearly that the child is a victim, thereby aligning with the Adoption and Children Act 2002 legislation. This has laid new duties on children's services and housing authorities which have the potential to deal with critical safeguarding issues as part of a multi-agency response- it is a positive development. A new approach to intervention can also be seen in the pilot problem-solving criminal courts for substance misusers, DA perpetrators and female offenders that are currently being set up. This is also a very promising development. It is of course too early to establish whether they will deliver better outcomes than traditional approaches, but a critical issue will be how far they interconnect with the family court. These developments reflect the shift in thinking from "why doesn't she leave?" to "why doesn't he stop?" (91). One answer to that question must be to provide better intervention strategies than have been available up to now.

   More broadly however, the issue of silos persists, and was acknowledged to be a major obstacle to reform as recently as 2018 in the Ministry of Justice Harm Panel Report. Issues of silo working are evident in SDVCs, with a lack of holistic support for co-occurring DA and substance misuse provided in this context (73). The Home Office consultation on domestic abuse strategy, welcome as it was, has also been criticized for giving insufficient attention to the role of the family court (91). As far more children and mothers are affected by DA in this context, irrespective of co-existing parental substance misuse, it seems vital to ensure that the role of the family court is fully recognized and to clearly specify areas of overlap and joint strategy.
3. Thirdly, beyond law and policy, the review has found that there is a lack of effective integrated family interventions for co-occurring substance misuse and DA and a lack of effective interventions for perpetrators for these issues. This is a discouraging finding in terms of efforts to reduce DA and substance misuse because the problems result in broken families, children being taken into care and concomitant significant societal impacts including the significant financial costs and wasted lives. There is a clear need to develop an early help service to reduce these risks and in this regard the recommendation by the Independent Review of Children's Social Care to develop family hubs makes sense.

   However, there will always be families who will require the court to intervene and determine whether the children can safely remain with their parents or need permanent separation. It is within this context that FDACs may have potential to better address co-existing parental substance misuse and DA than traditional courts or IDACs. Although more work is needed to test the concept and explore the value of FDAC as a response to DA in the context of care proceedings, this review has identified that the conceptual and theoretical approach holds out considerable promise. However, this potential can only be achieved if there are fundamental changes to care proceedings and family court processes, as discussed previously.

In sum, Hester's (82) agenda for reform to break down the silos was ambitious, and the 2018 Ministry of Justice Panel report makes clear the extent and persistence of the challenges associated with this. They encompass culture, understandings and attitudes to victims and perpetrators, professional expertise, the availability of effective services and resources. This review has shown that there is far greater awareness of the problems than ten years ago. However, there are still significant obstacles to achieving holistic effective interventions, working across sectors, underpinned by coherent well aligned criminal and family justice policies to tackle concurrent substance and DA and thereby promote children's wellbeing.

Tackling some of these issues will be easier than others. Addressing the issue of the data deficit is more circumscribed than the wider issues of legal and policy reform and development of effective interventions and as such may be easier to tackle. As suggested earlier, a possible starting point would be to introduce into the national administrative child protection and court databases a flag to mark the presence of DA and drug and alcohol misuse. Developing consistent definitions would also be an important preliminary step. Further research using LCA profiling would be useful, especially if it can be used to track recovery patterns over time and can be linked to the broader socio-economic context, given that poverty, deprivation, and housing problems are consistently linked to these problems. With regard to best practice, a systematic review of international evidence of co-occurrence would be of value. In relation to the role of the family court, more work needs to be done to shift from a theoretical argument in favor of FDACs to assist children and parents affected by DA, both as a single and co-occurring issue. Developing pilots with this goal in mind will be important, to see if they can produce better outcomes than ordinary child protection proceedings and enable families to stay together safely and sustainably. However, it is recognized that the challenges of aligning policy and practice across the criminal and family justice sector and between private and public law are

considerable and there are no easy answers as to how they can be addressed.

Conclusion

To conclude, this review has highlighted the well documented increased risk to mothers and children when parental substance misuse and DA co-exist. It has also shown what we know, where the gaps in our knowledge are, and has identified some of the challenges in addressing them. Whilst the focus has been on an English context, at least three key problems associated with how this issue is currently addressed in England and Wales, are relevant to many other jurisdictions across the globe. The first issue relates to the emphasis on criminal justice responses as the key way to prevent and reduce DA. There has been a flurry in legislative changes which intend to protect victim-survivors of DA, including the Domestic Abuse Act (2021) and the criminalization of coercive control (Serious Crime Act, 2015). However, in spite of this emphasis on criminal law and criminal justice interventions (81, 131), the prevalence and associated costs of DA remain consistently high. The jury is still out regarding whether legislative changes have helped to keep women and children safe or whether more law is the answer in relation to violence against women and girls more broadly (132). The statistics and evidence suggest that existing legislation has done relatively little to help women and children who experience DA (72).

The second issue relates to siloed approaches to responding to DA, substance misuse and mental health in spite of their clear overlaps. Hester (82) suggests that organizations working in the field of domestic violence, child protection and child contact are all essentially working from "different planets" and are difficult to bring together in a cohesive and coordinated way. Furthermore, treatment services are also often delivered in silos, despite the wealth of evidence highlighting the association between DA and parental substance misuse (102). An issue associated with this siloed working is a data deficit, resulting in a lack of a clear understanding of the scale and pattern of DA when co-existing with parental substance misuse. Thirdly and relatedly is a lack of a whole systems, holistic approaches to dealing with DA and parental substance misuse. Hester (82) suggests that a systematic change is required, emphasizing a unified, coordinated approach to dealing with DA.

This review has highlighted that one such way of enabling holistic, joined up approaches to responding to DA and substance misuse, which move away from focussing solely on legislative response, are FDACs. Evidence has highlighted their positive contribution to reunification and, with rigorous description and evaluation, could help extend the range of interventions designed to keep families together, challenging the view that courts are only sites of last resort.

In conclusion, the picture is very mixed as to the progress made in tackling co-occurrence of substance misuse and DA. What is clearer is where the gaps in our understanding are greatest and that the reform agenda is wide-ranging, ambitious and challenging.

Author contributions

JH and CB took equal responsibility for the production of the review. JH contributed her expertise in family law, care proceedings, parental substance misuse, the idea for the review, and family drug courts. CB brought her expertise in domestic abuse, criminal law, and its impacts. Both authors contributed to the article and approved the submitted version.

Funding

Lancaster University has agreed to cover the costs of open access publication.

Acknowledgments

We are grateful to Caroline S Cooper for acting as a key informant and particularly for her input on US Family Drug Treatment Courts and international expertise. Caroline Cooper has served for many years as Research Professor and Director, Justice Programs Office, School of Public Affairs, American University, Washington D.C.; currently Criminal and Civil Justice System Consultant (U.S. and International) and General Practice of Law. We are also grateful to Professor Karen Broadhurst, (Co-director, Centre for Child and Family Justice Research, Lancaster University) and Jennifer Cooper, (Law School, Lancaster University) for acting as key informants and for their helpful comments on the article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

References

1. Cruikshank G. *The Bottle.* (1847). Available online at: https://justiceinnovation.org/sites/default/files/media/document/2020/cji_psc_2020.pdf (accessed 5/6/22).

2. Hansard D. *HC Deb.* (1985), p. 1423-34. Available online at: https://api.parliament.uk/historic-hansard/commons/1985/jul/26/child-abuse (accessed July 08, 2022).

3. Wexler DB. The DNA of therapeutic jurisprudence in stobbs. In: Bartels L, Vols M, editors. *The Methodology and Practice of Therapeutic Jurisprudence* (2019).

4. Cooper CS. Evaluating the application of TJ principles: lessons from the drug court experience, Chapter 14. In: Stobbs N, Bartels and Vols M. editors. *The Methodology and Practice of Therapeutic Jurisprudence*, Durham, NC: Carolina Academic Press. (2019).

5. Arksey H, O'Malley L. Scoping studies: toward a methodological framework. *Int J Soc Res Methodol.* (2005) 8:19–32. doi: 10.1080/1364557032000119616

6. HM Government. (2018). *Working Together to Safeguard Children: A Guide to Inter-Agency Working to Safeguard and Promote the Welfare of Children.* Available at: https://assets.publishing.servicegov.uk/government/uploads/system/uploads/attachment_data/file/942454/Working_together_to_safeguard_children_inter_agency_guidance.pdf (accessed July 08, 2022).

7. Cleaver H, Nicholson D, Tarr S, Cleave D. *Child Protection, Domestic Violence and Parental Substance Misuse: Family Experiences and Effective Practice*. London: Jessica Kingsley Publishers (2007).

8. Velleman R, Templeton LJ. Impact of parents' substance misuse on children: an update. *BJPsych Advances.* (2016) 22:108–17. doi: 10.1192/apt.bp.114.014449

9. Holly J. *How social workers can work with domestic abuse, substance use and mental ill health, Community Care Inform Children* (2021). Available online at: https://www.communitycare.co.uk/2021/03/15/social-workers-can-work-domestic-abuse-substance-use-mental-ill-health/

10. Russell L, Gajwani R, Turner M, Minnis H. Gender, addiction, and removal of children into care, brief research report. *Front Psychiatr*. (2022) 22:660. doi: 10.3389/fpsyt.2022.887660

11. Cleaver H, Unell I, Aldgate J. *Children's Needs, Parenting Capacity: Parental Mental Illness, Learning Disability, Substance Misuse and Domestic Abuse*. London: The Stationary Office Limited (2011).

12. Mason R, O'Rinn SE. Co-occurring intimate partner violence, mental health, and substance use problems: a scoping review. *Global Health Act.* (2014) 7:24815. doi: 10.3402/gha.v7.24815

13. Ogbonnaya IN, Keeney AJ, Villodas MT. The role of co-occurring intimate partner violence, alcohol use, drug use, and depressive symptoms on disciplinary practices of mothers involved with child welfare. *Child abuse and neglect.* (2019) 90:76–87. doi: 10.1016/j.chiabu.2019.02.002

14. Cordis Bright. *Examination of the links between parental conflict and substance misuse and the impacts on children's outcomes*. Research Report for the Department of Work and Pensions. Key Non-Parliamentary Papers Social Security and Insurance. (2021).

15. Anda RF, Whitfield CL, Felitti VJ, Chapman D, Edwards VJ, Dube SR, et al. Adverse childhood experiences, alcoholic parents, and later risk of alcoholism and depression. *Psychiatric Serve.* (2002) 53:1001–9. doi: 10.1176/appi.ps.53.8.1001

16. Cleaver H, Rose W. *Caring for children who have experienced domestic abuse: A guide to supporting foster carers, adopters and kinship carers, CoramBAAF*. Adoption and Fostering Academy. (2022).

17. Wilkins M, Farmer E. *Reunification from Out-of-Home Care: A Research Overview of Good Practice in Returning Children Home from Care, University of Bristol.* (2018). Available online at: http://www.bristol.ac.uk/sps/research/projects/completed/2016/returninghome/ and www.nspcc.org.uk/returninghome.

18. Stark E. *Coercive Control: How Men Entrap Women in Personal Life*. New York: Oxford University Press (2007).

19. Barlow C, Walklate S. *Coercive Control*. London: Routledge (2022).

20. Home Office. *Domestic Abuse: Draft Statutory Guidance Framework.* (2022). Available online at: https://www.gov.uk/government/consultations/domestic-abuse-act-statutory-guidance/domestic-abuse-draft-statutory-guidance-framework (accessed July 08, 2022).

21. Scott S, MacManus S. *Hidden Hurt: Violence, Abuse and Disadvantage in the Lives of Women*. London: Agenda (2016).

22. He Y, Leventhal JM, Gaither JR, Jones EA, Kistin CJ. Trends from 2005 to 2018 in child maltreatment outcomes with caregivers' substance use. *Child Abuse Neglect.* (2022) 131:105781. doi: 10.1016/j.chiabu.2022.105781

23. Kepple NJ. Does parental substance use always engender risk for children? Comparing incidence rate ratios of abusive and neglectful behaviors across substance use behavior patterns. *Child Abuse Neglect.* (2018) 76:44–55. doi: 10.1016/j.chiabu.2017.09.015

24. Barnett A. *Domestic abuse and private law children cases. A literature review. Ministry of Justice* (2020).

25. CAADA. *In Plain Sight: Effective Help for Children Exposed to Domestic Abuse.* Cardiff, Wales: Coordinated Action Against Domestic Abuse (2014).

26. Lacey RE, Howe LD, Kelly-Irving M, Bartley M, Kelly Y. The clustering of adverse childhood experiences in the Avon longitudinal study of parents and children: are gender and poverty important?. *J Interperson viol.* (2022) 37:2218–41. doi: 10.1177/0886260520935096

27. Stanley N. *Children Experiencing Domestic Violence: A Research Review*. Dartington: Research In Practice (2011).

28. Hester M, Pearson C, Harwin N, Abrahams H. *Making an impact—children and domestic violence: A Reader*. London: Jessica Kingsley (2007).

29. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experiences (ACE) study. *Am J Prevent Med.* (1998) 14:245–8. doi: 10.1016/S0749-3797(98)00017-8

30. Humphreys C, Regan L, River D, Thiara RK. Domestic violence and substance use: tackling complexity. *Br J Soc Work.* (2005) 35:1303–20. doi: 10.1093/bjsw/bch212

31. Cafferky BM, Mendez M, Anderson JR, Stith SM. Substance use and intimate partner violence: a meta-analytic review. *Psychol Viol.* (2018) 8:110. doi: 10.1037/vio0000074

32. Mootz JJ, Fennig M, Wainberg ML. Barriers and facilitators of implementing integrated interventions for alcohol misuse and intimate partner violence: a qualitative examination with diverse experts. *J. Substan. Abuse Treat.* (2022) 137:108–64. doi: 10.1016/j.jsat.2021.108694

33. Velleman R, Templeton L, Reuber D, Klein M, Moesgen D. Domestic abuse experienced by young people living in families with alcohol problems: results from a cross-European study. *Child Abuse Rev.* (2008) 17:387–409. doi: 10.1002/car.1047

34. Temple JR, Gregory S, O'Farrell TJ. Prevention of intimate partner violence in substance-using populations. *Subst Use Misuse.* (2009) 44:1318–28. doi: 10.1080/10826080902961377

35. Gilchrist G, Hegarty K. Tailored integrated interventions for intimate partner violence and substance use are urgently needed. *Drug Alcohol Rev.* (2017) 36:3–6. doi: 10.1111/dar.12526

36. Gadd D, Henderson J, Radcliffe P, Stephens-Lewis D, Johnson A, Gilchrist G. The dynamics of domestic abuse and drug and alcohol dependency. *Br J Criminol.* (2019) 59:1035–53. doi: 10.1093/bjc/azz011

37. Bonilla-Algovia E, Rivas-Rivero E, Vazquez JJ. Impact of gender-based violence on psychological distress and happiness in Leon. *Health Care Women Int.* (2020) 41:673–89. doi: 10.1080/07399332.2020.1764564

38. Rivas-Rivero E, Bonilla-Algovia E. Adverse childhood events and substance misuse in men who perpetrated intimate partner violence. *Int J Offender Ther Comp Criminol.* (2022) 66:876–95. doi: 10.1177/0306624X211013519

39. Golding JM. Intimate partner violence as a risk factor for mental disorders: ameta-analysis. *J Fam Viol.* (1999) 14:99–132. doi: 10.1023/A:1022079418229

40. Fox S. [. . .] you feel there's nowhere left to go: the barriers to support among women who experience substance use and domestic abuse in the UK. *Adv Dual Diagn.* (2020) 13:57–71. doi: 10.1108/ADD-09-2019-0010

41. Kaysen D, Dillworth T, Simpson T, Waldrop A, Larimer M, Resick A. Domestic violence and alcohol use: Trauma-related symptoms and motives for drinking. *Addict Behav.* (2007) 32:1272–83. doi: 10.1016/j.addbeh.2006.09.007

42. Radcliffe P, Gadd D, Henderson J, Love B, Stephens-Lewis D, Johnson A, et al. What role does substance use play in intimate partner violence? a narrative analysis of in-depth interviews with men in substance use treatment and their current or former female partner. *J Interperson Viol.* (2021) 36:10285–313. doi: 10.1177/0886260519879259

43. Office for National Statistics. *Child Abuse in England and Wales: January 2020*. (2020). Available online at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/childabuseinenglandandwales/january2020 (accessed July 8, 2022).

44. Mason R, Wolf M, O'Rinn S, Ene G. Making connections across silos: intimate partner violence, mental health, and substance use. *BMC Women's Health.* (2017) 17:1–7. doi: 10.1186/s12905-017-0372-4

45. Humphreys C, Heward-Belle S, Tsantefski M, Isobe J, Healey L. Beyond co-occurrence: Addressing the intersections of domestic violence, mental health and substance misuse. *Child Fam Soc Work*. (2022) 27: 299–310. doi: 10.1111/cfs.12885

46. Office for National Statistics. *Domestic Abuse in England and Wales: Year Ending March 2018*. Statistical Bulletin (2018). Available online at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/domesticabuseinenglandandwales/yearendingmarch2018 (accessed July 8, 2022).

47. Canfield M, Norton S, Downs J, Gilchrist G. Parental status and characteristics of women in substance use treatment services: analysis of electronic patient records. *J Subst Abuse Treat.* (2021) 127:108365. doi: 10.1016/j.jsat.2021.108365

48. Chowdry, H. *Estimating the prevalence of the 'Toxic Trio': Evidence from the Adult Psychiatric Morbidity Survey*. (2018). Available online at: https://www.childrenscommissioner.gov.uk/wp-content/uploads/2018/07/Vulnerability-Technical-Report-2-Estimating-the-prevalence-of-the-toxic-trio.pdf (accessed July 08, 2022).

49. Children's Commissioner. *Childhood Vulnerability in Numbers, London* (2019).

50. Office for National Statistics, Domestic abuse prevalence and trends, England and Wales: year ending March 2020 https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/domesticabuseprevalenceandtrendsenglandandwales/yearendingmarch2020 (accessed July 8, 2022).

51. MacAlister J. *The Independent Review of Children's Social Care (in England): Final Report, The Independent Review of Children's Social Care*. (2022). Available online at: https://policycommons.net/artifacts/2438456/the-independent-review-of-childrens-social-care-final-report/3460180/~on (accessed July 08, 2022). 29 May 2022. CID: 20.500.12592/n6pfpc.

52. Domestic Abuse Commissioner. *Improving the Family Court response to domestic abuse*. (2021). Available online at: https://domesticabusecommissioner.uk/wp-content/uploads/2021/11/Improving-the-Family-Court-Response-to-Domestic-Abuse-final.pdf (accessed July 08, 2022).

53. Cusworth L, Bedston S, Alrouh B, Broadhurst K, Johnson R, Akbari A, and Griffiths L. *Uncovering private family law: Who's coming to court in England*? London: Nuffield Family Justice Observatory (2021). Available online at: https://www.nuffieldfjo.org.uk/resource/private-family-law-whos-coming-to-court-england

54. Harwin J, Alrouh B, Golding L, McQuarrie T, Broadhurst K, Cusworth L. *The Contribution of Supervision Orders and Special Guardianship to Children's Lives and Family Justice*. Lancaster: Final report to the Nuffield Foundation, Lancaster University (2019). Available online at: https://www.nuffieldfjo.org.uk/resource/the-contribution-of-supervision-orders-and-special-guardianship-to-children-s-lives-and-family-justice

55. Broadhurst K, Mason C, Bedston S, Alrouh B, Morriss L, McQuarrie T, et al. *Vulnerable Birth Mothers and Recurrent Care Proceedings*. Lancaster: University of Lancaster (2017). Available online at: www.cf-jlancaster.org.uk/projects/vulnerable-birth-mothers-and-recurrent-care-proceedings

56. Philip G, Bedston S, Youansamouth L, Clifton J, Broadhurst K, Brandon M, et al. *'Up* Against It': Understanding Fathers' Repeat Appearance in Local Authority Care Proceedings (Full Project Report). *Nuffield Foundation.* (2021).

57. Roy J. Children living with parental substance misuse: A cross-sectional profile of children and families referred to children's social care. *Child Fam Soc Work.* (2021) 26:122–31. doi: 10.1111/cfs.12795

58. Forrester D, Harwin J. Parental substance misuse and child welfare: outcomes for children two years after referral. *Br J Soc Work* (2008) 38:1518–35. doi: 10.1093/bjsw/bcm051

59. Masson JM, Pearce J, Bader K, Joyner O, Marsden J, Westlake D. *Care Profiling Study*. London: Ministry of Justice (2008).

60. Home Office. *The Economic and Social Costs of Domestic Abuse.* (2019). Available online at: https://www.gov.uk/government/publications/the-economic-and-social-costs-of-domestic-abuse (accessed July 08, 2022).

61. Walby, S. The cost of domestic violence. *Women and Equalities Unit Report.* (2009). Available online at: https://eprints.lancs.ac.uk/id/eprint/55255/1/cost_of_dv_report_sept04.pdf (accessed July 08, 2022).

62. Skinner GM, Bywaters PW, Bilson A, Duschinsky R, Clements K, Hutchinson D. The 'toxic trio' (domestic violence, substance misuse and mental ill-health): how good is the evidence base? *Child Youth Serv Rev.* (2021) 120:105–37. doi: 10.1016/j.childyouth.2020.105678

63. Weller BE, Bowen NK, Faubert SJ. Latent class analysis: a guide to best practice. *J Black Psychol.* (2020) 46:287–311. doi: 10.1177/0095798420930932

64. Sharp-Jeffs N, Klein R. Long journeys toward freedom: The relationship between coercive control and space for action: Measurement and emerging evidence. *Violence Against Women.* (2017) 24:163–85. doi: 10.1177/1077801216686199

65. Strickland P. *Clare's Law: The domestic violence disclosure scheme'. House of Commons Library: Home Affairs Section*. (2013). Available online at: https://commonslibrary.parliament.uk/research-briefings/sn06250/ (accessed July 08, 2022).

66. Bates L, Hester M. No longer a civil matter? the design and use of protection orders for domestic violence in England and Wales. *J Soc Welfare Fam law.* (2020) 42:133–53. doi: 10.1080/09649069.2020.1751943

67. Barlow C, Walklate S, Renehan N. Domestic violence disclosure schemes: victim-survivor perspectives. *British Academy Report* (2021).

68. Hastings A, Mackenzie M, Earley A. *Domestic Abuse and Housing*. UK Collaborative Centre for Housing Evidence, housingevidence.ac.uk (2021).

69. Women's Aid. *The Domestic Abuse Report 2020: The Hidden Housing Crisis*. Bristol: Women's Aid (2020). Available online at: https://www.womensaid.org.uk/wp-content/uploads/2020/06/The-Domestic-Abuse-Report-2020-The-Hidden-Housing-Crisis.pdf (accessed July 08, 2022).

70. Robinson A, Cook D. Understanding victim retraction in cases of domestic violence: specialist courts, government policy, and victim-Centreed justice. *Contemporary Just Rev.* (2006) 9:189–213. doi: 10.1080/10282580600785017

71. Cook D, Burton M, Robinson A, Vallely C. *Evaluation of Specialist Domestic Violence Courts/Fast Track Systems*. London: Crown Prosecution Service and Department of Constitutional Affairs. (2004).

72. Office for National Statistics. *Domestic Abuse in England and Wales overview: November 2021*. (2021). Available online at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/domesticabuseinenglandandwalesoverview/november2021 (accessed July 08, 2022).

73. Centre for Justice Innovation. *Better courts: A snapshot of domestic violence courts in 2013*. CJI Report, London (2018).

74. Ministry of Justice. *Assessing Risk of Harm to Children and Parents in Private Law Children Cases Implementation Plan*, Ministry of Justice (2020). Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/895173/assessing-risk-harm-children-parents-pl-childrens-cases-report_.pdf (accessed July 08, 2022).

75. Government News. *Press Release: New Problem-Solving Courts to Combat Drug and Alcohol-Fuelled Crime*. (2022). Available online at: https://www.gov.uk/government/news/new-problem-solving-courts-to-combat-drug-and-alcohol-fuelled-crime (accessed July 08, 2022).

76. Bowen P. *Delivering a Smarter Approach: Piloting Problem Solving Courts: Briefing Paper* (2020).

77. Bowen P, Smith S, Whitehead S, Ofori A. *Enhancing the Criminal Court Response toSubstance Misuse: an Evidence and Practice Briefing, Centre for Justice Innovation Briefing*. (2020). Available online at: https://justiceinnovation.org/sites/default/files/media/documents/2020-08/substance_misuse_briefing.pdf (accessed July 08, 2022).

78. Bowen P, Whitehead S. *Problem-Solving Courts: An Evidence Review*. *Centre for Justice Innovation.* (2016). Available online at: https://justiceinnovation.org/publications/problem-solving-courts-evidence-review (accessed July 08, 2022).

79. Logan MW, Link NW. Taking stock of drug courts: do they work?. *Victims Offend.* (2019) 14:283–98. doi: 10.1080/15564886.2019.1595249

80. Schaefer L, Beriman M. Problem-solving courts in Australia: a review of problems and solutions. *Victims Offend.* (2019) 14:344–59. doi: 10.1080/15564886.2019.1595245

81. Goodmark L. Exporting without license: the American attempt to end intimate partner abuse worldwide. In: Goel, R, and Goodmark, L. editors, *Comparative Perspectives on Gender Violence: Lessons from Efforts Worldwide*: 3–14. Oxford: Oxford University Press (2015).

82. Hester M. The three planet model: toward an understanding of contradictions in approaches to women and children's safety in contexts of domestic violence *Br J Soc Work.* (2011) 41:837–53. doi: 10.1093/bjsw/bcr095

83. Hunter R, Burton M, Trinder L. *Assessing risk of harm to children and parents in private law children cases. Final Report, Ministry of Justice.* (2020).

84. Clemente M, Padilla-Racero D. Are children susceptible to manipulation? The best interest of children and their testimony. *Child Youth Serv Rev.* (2015) 51:101–7. doi: 10.1016/j.childyouth.2015.02.003

85. Reeves E. 'I'm not at all protected and I think other women should know that, that they're not protected either': Victim–survivors' experiences of 'misidentification' in Victoria's family violence system. *Int J Crime Just Soc Democr.* (2021) 2:2. doi: 10.5204/ijcjsd.1992

86. Douglas H. *Women, Intimate Partner Violence and the Law*. Oxford; Oxford University Press (2021).

87. Ministry of Justice. *North Wales Family Court pilots New Approach for Supporting Separated Families Who Come to Court*. (2022). Available online at: https://gov.wales/north-wales-family-court-pilots-new-approach-supporting-separated-families-who-come-court (accessed July 08, 2022).

88. Ministry of Justice. *New Practice Direction 36Z—Pilot Scheme: Private Law Reform: Investigative Approach*. (2022). Available online at: https://www.justice.gov.uk/courts/procedure-rules/family/practice_directions/new-practice-direction-36z-pilot-scheme-private-law-reform-investigative-approach (accessed July 08, 2022).

89. Scottish Government. *Evidence on the Effectiveness of Integrated Domestic Abuse Courts*. (2019). Available online at: https://www.gov.scot/publications/evidence-effectiveness-integrated-domestic-abuse-courts/ (accessed July 08, 2022).

90. Harwin J, Golding L. *Supporting Families After Care Proceedings: Supervision Orders and Beyond*. Department for Education (2022). Available online at: https://www.gov.uk/government/publications/supporting-families-after-care-proceedings (accessed July 08, 2022).

91. Tunnard J. *Discussion paper on the Domestic Abuse Strategy (written on behalf of author organizations)*. (2021). Available online at: https://www.ryantunnardbrown.com/wp-content/uploads/2022/01/Discussion-paper-on-the-Domestic-Abuse-Strategy-November-2021-Jo-Tunnard-on-behalf-of-author-organisations1.pdf

92. Renehan N. *Building better relationships? Interrogating the 'black box' of a statutory domestic violence perpetrator programme. Summary of thesis and key findings report*. Manchester: University of Manchester (2021).

93. Freeman P, Hunt J. *Parent perspectives on care proceedings*. London: The Stationary Office (1998).

94. Hunt J. *Parental Perspectives on the Family Justice System in England and Wales: A Review of Research*. (2010). Available online at: https://www.judiciary.uk/wp-content/uploads/JCO/Documents/FJC/Publications/Parental_Perspectives_final.pdf (accessed July 08, 2022).

95. Kertesz M, Humphreys C, Fogden L, Scott K, Laslett AM, Tsantefski M. KODY, an all-of-family response to co-occurring substance use and domestic violence: protocol for a quasi-experimental intervention trial. *BMC Public Health*. (2022) 22:1–9. doi: 10.1186/s12889-022-12529-x

96. Gadd D, Henderson J, Radcliffe P, Stephens-Lewis D, Johnson A, Gilchrist G. '*Transforming the Response to Drug and Alcohol Dependent Perpetrators of Domestic Abuse*'. (2018). Available online at: https://blog.policy.manchester.ac.uk/featured/2018/11/transforming-the-response-to-drug-and-alcohol-dependent-perpetrators-of-domestic-abuse/(accessed July 08, 2022).

97. Wild J. *Working with people who perpetrate domestic violence and abuse in families: Evidence Review*. Dartington: Research in Practice (2021).

98. Stover CS, Meadows AL, Kaufman J. Interventions for intimate partner violence: Review and implications for evidence-based practice. *Prof Psychol Res Pr*. (2009) 40:223–33. doi: 10.1037/a0012718

99. Stover C. Fathers for change for substance use and intimate partner violence: building motivation for change through perpetrator programmes. *Child Abus Rev*. (2015) 4:264–74. doi: 10.1111/famp.12136

100. Kelly L, Westmarland N. *Domestic Violence Perpetrator Programmes: Steps Toward Change. Project Mirabal Final Report*. London and Durham: London Metropolitan University and Durham University (2015).

101. Callaghan JE, Fellin LC, Alexander J. Promoting resilience and agency in children and young people who have experienced domestic violence and abuse: the BMPOWER intervention. *J Fam Violence*. (2019) 34:521–37. doi: 10.1007/s10896-018-0025-x

102. Bosk EA, Van Scoyoc A, Mihalec-Adkins B, Conrad A, Hanson K, Chaiyachati BH. Integrating responses to caregiver substance misuse, intimate partner violence and child maltreatment: Initiatives and policies that support families at risk for entering the child welfare system. *Aggr Viol Behav*. (2021) 21:101637. doi: 10.1016/j.avb.2021.101637

103. Gilchrist G, Potts L, Radcliffe P, Halliwell G, Dheensa S, Henderson J, et al. Advance integrated group intervention to address both substance use and intimate partner abuse perpetration by men in substance use treatment: A feasibility randomised controlled trial. *BMC Public Health*. (2021) 21:1–20. doi: 10.1186/s12889-021-11012-3

104. Forrester D, Lynch A, Bostock L, Newlands F, Preston B, Cary A. *Family Safeguarding Hertfordshire: Evaluation Report*. (2017). Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/625400/Family_Safeguarding_Hertfordshire.pdf (accessed July 08, 2022).

105. Black C. *Review of Drugs—Evidence Relating to Drug Use, Supply and Effects, Including Current Trends and Future Risks*. London: Department of Health and Social Care (2020). Available online at: https://www.gov.uk/government/publications/review-of-drugs-phase-two-report/review-of-drugs-part-two-prevention-treatment-and-recovery (accessed July 08, 2022).

106. Domestic Abuse Commissioner. *Mapping of Domestic Abuse Services across England and Wales*. (2022). Available online at: https://domesticabusecommissioner.uk/wp-content/uploads/2022/07/DAC-Mapping-briefing-paper-final.pdf (accessed July 08, 2022).

107. Advisory Council on the Misuse of Drugs (ACMD). (2017). *Commissioning Impact onDrug Treatment*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/642811/Final_Commissioning_report_5.15_6th_Sept.pdf (accessed July 08, 2022).

108. Women's Aid. *The Impact of COVID-19 on Domestic Abuse Support Services: Findings From an Initial Women's Aid Survey*. (2020). Available online at: https://www.womensaid.org.uk/wp-content/uploads/2020/05/The-impact-of-Covid-19-ondomestic-abuse-support-services-1.pdf (accessed July 08, 2022).

109. Public Health England. *Alcohol Consumption and Harm During the Covid-19 Pandemic*. (2021). Available online at: https://www.gov.uk/government/publications/alcohol-consumption-and-harm-during-the-covid-19-pandemic, (accessed July 08, 2022).

110. Black C. *Review of Drugs—Executive Summary. London, Department of Health and Social Care*. (2020). Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/897786/2SummaryPhaseOne$+$foreword200219.pdf (accessed July 08, 2022).

111. Harwin J, Alrouh B, Broadhurst K, McQuarrie T, Golding L, Ryan M. Child and parent outcomes in the London family drug and alcohol court five years on: building on international evidence. *Int J Law Policy Family*. (2018) 32:140–69. doi: 10.1093/lawfam/eby006

112. Zhang S, Huang H, Wu Q, Li Y, Liu M. The impacts of family treatment drug court on child welfare core outcomes: a meta-analysis. *Child Abuse and Neglect*. (2019) 88:1–14. doi: 10.1016/j.chiabu.2018.10.014

113. Bowen P. *Rolling-out Family Drug and Alcohol Courts (FDAC); The business case. Centre for Justice Innovation*. (2021). Available online at: https://justiceinnovation.org/publications/rolling-out-family-drug-and-alcohol-courts-fdac-business-case (accessed July 08, 2022).

114. Department for Education. *£15 Million Investment to Help Keep Families Together*. (2019). Available online at: https://www.gov.uk/government/news/15-million-investment-to-help-keep-families-safely-together (accessed October 22, 2021).

115. Munby J. *Care crisis: Family Drug and Alcohol Court (FDAC)*. (2018). Available online at: https://www.familylaw.co.uk/news_and_comment/care-crisis-fdac (accessed 25/10/2021).

116. View from the President's Chamber. (2021). Available online at: https://www.judiciary.uk/publications/a-view-from-the-presidents-chambers-july-2021/ (accessed 25/10/2021).

117. Harwin J, Ryan M, Broadhurst K. How does FDAC succeed with parents with substance misuse problems? exploring relational practices within the english family drug and alcohol court. *Child Abuse Rev*. (2018) 27:266–79. doi: 10.1002/car.2521

118. Winnick BJ. Therapeutic jurisprudence and problem-solving courts. *Fordham Urban Law J*. (2003) 3:1055–90.

119. Wexler DB, Winick B. Therapeutic jurisprudence as a new approach to mental health Law. *Policy Anal Res Miami Law Rev*. (1991) 43:979–90.

120. Stobbs N, Bartels L, Vols M. *The Methodology and Practice of Therapeutic Jurisprudence*. Carolina: Carolina Academic Press (2019).

121. Meindl M, Stabler L, Mayhew Manistre L, Sheehan L, O'Donnell C, Forrester D, Brand S. *How Do Family Drug and Alcohol Courts Work With Parents to Safely Reduce the Number of Children in Care? A Rapid Realist Review*. (2019). Available online at: https://orca.cardiff.ac.uk/id/eprint/132941/1/WWCSC_FDAC_rapid_realist_review_Oct2019%20%281%29.pdf (accessed July 08, 2022)

122. Kawalek A. A tool for measuring therapeutic jurisprudence values during empirical research. *Int J Law Psychiatr*. (2020) 71:101–81. doi: 10.1016/j.ijlp.2020.101581

123. Children and Families Futures. *Guidance to States: Recommendations for Developing Family Drug Court Guidelines. Prepared for the Office of Juvenile Justice and Delinquency Prevention (OJJDP) Office of Justice Programs*. (2015). Available online at: http://www.cffutures.org/files/publications/FDC-Guidelines.pdf (accessed July 08, 2022).

124. Crawford E, Liebling-Kalifani H, Hill V. Women's understanding of the effects of domestic abuse: the impact on their identity, sense of self and resilience. *Ground Theory Approach J Int Women's Stud*. (2009) 11:63–82.

125. Radcliffe P. Drug use and motherhood: strategies for managing identity. *Drugs Alcohol Today*. (2009) 9:26. doi: 10.1108/17459265200900026

126. Orford J. *Power, Powerlessness and Addiction*. Cambridge: Cambridge University Press (2013).

127. Webb L, Clayson A, Duda-Mikulin E, Cox N. 'I'm getting the balls to say no': Trajectories in long-term recovery from problem substance use. *J Health Psychol*. (2022) 27:69–80. doi: 10.1177/1359105320941248

128. Fay-Ramirez S, Eggins E. PROTOCOL: Family treatment drug courts for improving parental legal and psychosocial outcomes. *Campbell Systemat Rev*. (2019) 15:1–2. doi: 10.1002/cl2.1024

129. Harwin J, Broadhurst K, Cooper C, Taplin S. Tensions and contradictions in family court innovation with high risk parents: the place of family drug treatment courts in contemporary family justice. *Int J Drug Policy*. (2018) 68:101–8. doi: 10.1016/j.drugpo.2018.04.019

130. Bywaters P, Brady G, Bunting L, Daniel B, Featherstone B, Jones C, et al. Inequalities in English child protection practice under austerity: a universal challenge? *Child Fam Soc Work*. (2018) 23:53–61. doi: 10.1111/cfs.12383

131. Barlow C, Walklate S. Gender, risk assessment and coercive control: contradictions in terms?, *Br J Criminol*. (2021) 61:887–904. doi: 10.1093/bjc/azaa104

132. Walklate S, Fitz-Gibbon K, McCulloch J. Is more law the answer? Seeking justice for victims of intimate partner violence through reform of legal categories. *Criminol Crim Justice*. (2018) 18:115–31. doi: 10.1177/1748895817728561

frontiers | Frontiers in Psychiatry

TYPE Original Research
PUBLISHED 10 August 2023
DOI 10.3389/fpsyt.2023.1221500

OPEN ACCESS

EDITED BY
Lucy Webb,
Manchester Metropolitan University,
United Kingdom

REVIEWED BY
Keith V. Bletzer,
Arizona State University, United States
Suzanne Decker,
United States Department of Veterans Affairs,
United States

*CORRESPONDENCE
April Shaw
✉ ashaw419@gmail.com

RECEIVED 12 May 2023
ACCEPTED 24 July 2023
PUBLISHED 10 August 2023

CITATION
Shaw A (2023) Women in mid-life and older age in recovery from illicit drug use: connecting and belonging.
Front. Psychiatry 14:1221500.
doi: 10.3389/fpsyt.2023.1221500

Women in mid-life and older age in recovery from illicit drug use: connecting and belonging

April Shaw*

Salvation Army Centre for Addiction Services and Research, Faculty of Social Science, University of Stirling, Stirling, United Kingdom

Background: Establishing and maintaining healthy social connections and relationships are important in encouraging a sense of belonging that can help mid-life and older aged women in recovery from illicit drug use. This paper contributes to an under-researched area of substance use recovery among women in mid-life and older age by asking what influence social relationships have on their sense of self as they age into recovery from illicit drugs.

Methods: In-depth qualitative interviews were undertaken with 19 women in the United Kingdom who self-identified as 'in recovery' from illicit drug use. The interviews were transcribed verbatim and analyzed using Braun and Clarke's thematic analysis techniques. The study received ethical approval from the University of Glasgow.

Results: As their drug use progressed, the women experienced feelings of estrangement and separation from others. Entering and maintaining a healthy recovery from drug use required the women to break their connections to people considered disruptive or challenging. Creating and setting boundaries enabled some of the women to gain a sense of control over their relationships and recovery. Positive reinforcement from others was pivotal to the process of the women's self-acceptance, contributing to better self-concepts that helped them maintain their recovery.

Discussion: This investigation into substance use recovery among women in mid-life and older age offers new insights into the relationship challenges they face. It offers suggestions for further research that could support the development of family support programs for mid-life and older age women in active drug use or recovery.

KEYWORDS

illicit drug use, recovery, women in mid-life and older age, family relationships, connecting and belonging

Introduction

The term 'recovery' In relation to drug use, is an imprecise concept (1). As Neale et al. suggest, recovery is not just about 'taking or not taking drugs' as people may self-identify as in recovery but continue to use illicit substances (2: p. 15). Recovery is also defined as individuals achieving and sustaining improvements in relationships, health, employment and other areas of their personal (and public) lives (2). It is also argued that recovery is a personal process that defies predictive rules (3). This paper adopts a definition that encompasses the Scottish

Government's characterization as a 'process through which an individual is enabled to move on from their problem drug use, towards a drug-free life as an active and contributing member of society' (4: p. 23). As the findings in this paper will demonstrate recovery is a highly personal concept among women who have lived experience of unmanageable drug use.

Self-in-relation theory recognizes that people experience their self in relation to family members, friends, children, neighbors, colleagues and others (5). As ageing occurs, people are prone to experience the loss of key relationships and social networks while the biological and social aspects of ageing can increase the sense of diminished self-worth among older people, particularly among older people who use drugs (6). For women in mid-life and older increasing isolation and marginalization within drug-using circles is exacerbated by disengagement from relationships through the death of drug-using friends, friends who use drugs and enter recovery and stop using, or age-segregation within the drug using environment (6). Nevertheless, a shrinking network of drug-using associates and significant others can be beneficial to reducing and abstaining from problematic drug use and shifting to a new social identity that engenders a sense of belonging (7). Bellaert et al.'s qualitative study of 30 women revealed supportive social and structural factors were needed to create a positive separation from drug-using networks and to increase feelings of connectedness (7: p. 298). However, network members can also provide support which can make it difficult to fully disconnect from relationships that might risk recovery (8). Furthermore, as women age their attitudes and responsibilities toward others may change. For example, Hamilton and Grella (9) study of older people who used heroin found women were more expressive than men about the impact of their drug use on their families and in particular expressed regret and guilt over neglecting their children (9). Similarly, Jessup et al. (10) describe how parenting and grandparenting is a primary motivation to stop drug use but also how reconciling relationships with adult children can be fragile and challenging (10). Interpersonal relationships can be both a source of support and potential triggers for relapse.

For some women, relationships with their own mothers can be challenging but also in many cases a vital source of emotional and practical support (11). In Strauss and Falkin's mixed method study of 100 women around one-third reported difficult relationships and feelings of abandonment. While some of the women's mothers provided unconditional support, others encouraged criminal activity and drug use. A breakdown in trust between mothers and daughters was reported with some indicating their mothers exercised control over them or provided unwanted help. These actions made it difficult for daughters to view these attempts at help as supportive. The grandparent role, which usually occurs later in life, is a role through which some women attempt to re-establish their relationships with children and restore their identities as 'nurturing' and 'caring' women (12). Caregiving for family members can reinforce abstinence or reduce drug and alcohol intake (10) while multiple responsibilities and obligations to ageing parents, long-term partners, children and grandchildren can lead some older women to subordinate their needs to those of others (13). Women's sense of self is tied to the relationships they nurture or abandon as they move through life. As Guerrero et al. have shown, developing and maintaining empowering relationships are important for women in recovery as they can support and encourage improvements in psychological and physical well-being (14). The importance of social interactions and relationships has the potential to encourage connectedness and a sense of belonging to something that helps shape an individual's recovery (15). Connecting with others, making and maintaining healthy social relationships are key factors in many people's successful recovery from drug use.

Belonging as a concept is defined by Vanessa May as a 'sense of ease with oneself and one's surroundings' (16: p. 368). An individual's sense of self is constructed in their interactions with others and in the abstract notion of collectively held social norms, values, and customs (17). People in recovery from illicit drug use are often described as having gone through some kind of identity transition or change (3). According to McIntosh (18), some are said to revert to an 'unspoiled' identity (18) as if being a drug user equates to having a spoiled identity. Identity change in recovery is socially negotiated through a process of social learning and control that is communicated through an individual's social recovery networks (19). According to Best et al. important to this shift in identity from 'drug user' to 'person in recovery' is a sense of belonging, support, efficacy and meaning (19: p. 115). As social creatures, a person's sense of belonging is usually associated with connections to something, someone, or somewhere. Human connectedness occurs when people actively engage with others, activities, objects, or environments that results in a sense of well-being and belonging (20). However, feeling connected and feeling that one belongs are not necessarily contiguous. A sense of belonging requires some form of connection therefore connectedness can be a precursor to, and reinforce, belonging (21). Yet one can be connected but not feel a sense of belonging or have a sense of belonging but not feel connected (10). Belonging involves emotional attachment, a 'feeling of being home and safe' (22: p. 647). People perform connectedness and belonging throughout their lives - moving in and out of different places, spaces, and relationships, connecting and disconnecting as they go (23). The individual's sense of self, the way they see themselves and the ways in which they perform to others, are socially negotiated.

A recent study of 88 women in recovery described 'relationship actions' such as disconnecting or limiting contact with recovery-endangering people whilst adding recovery-supportive individuals to help maintain recovery (24). Work by Gunn and Samuels has shown that while some family relationships can promote and support recovery, others can impede recovery through stigmatizing actions and unrealistic expectations (25). This is supported by the work of Sanders (26) who in a mixed-method study of 92 women attending Narcotics Anonymous in the United States, found that women often experienced stigmatizing behaviors within the family and many felt shame regarding relationships that had broken down (26). Families can be sources of trauma and pain as well as love and belonging (27). Belonging therefore has a temporal and spatial element that changes over time, 'partly in response to changes in our self', but also to changes in people and the world around us (16: p. 372). Belonging is a dynamic practice that is temporal in nature. And so too is recovery. People move into, through and beyond recovery. Eventually, recovery can belong to an individual's past. As a sense of self changes, so does a sense of belonging, and as a sense of belonging changes, so does a sense of self. Belonging is therefore a multidimensional experience in which people experience multiple senses of belonging across time and place. Women who engage in a mix of meaningful and multiple activities are likely to develop identities beyond that of women 'in recovery' or 'ex-drug user' (28).

In this paper, the research question, what influence do social relationships have on women's sense of self as they age into drugs recovery? is explored through an analysis of 19 qualitative interviews with women in mid-life and older with histories of using illicit drugs and other substances. The phrase 'age into drugs recovery' refers to the temporal aspect of moving from drug use to (self-defined) recovery. The women in this study were interviewed at a single point in time but they reflected on their lives from childhood through to where they are now and oftentimes their hopes and aspirations for the future. It was considered appropriate to use the terms 'age into' or 'ageing into' to describe the dynamic and temporal process of the women's recovery journeys. For the purposes of this study, 'older' in the context of problem drug use was defined as aged 35 years and older in line with published Scottish and European research (29, 30). This cut-off may seem young but long-term drug use is likely to accelerate the ageing process and its accompanying conditions, with some authors suggesting long-term drug users who start at a younger age may have a biological age some 15 years older than their chronological age (30, 31).

While there is a growing body of academic research exploring the effects of drug use and the treatment needs of older people who use drugs, there remains comparatively less work exploring the needs of women in mid-life and older who use drugs or are in recovery from unmanageable illicit drug use. In light of this absence of research in the field of drug use and recovery, the decision to look at the specific issues surrounding women in mid-life and older was considered appropriate and relevant to understanding the issues that affect them at this stage in their life.

Methods

Methodological approach

The methodological approach of this study is grounded in an interpretivist and feminist paradigm, namely symbolic interactionism (32) and feminist standpoint theory (33). Symbolic interactionism is based on three underlying principles. Firstly, people act toward things (for example objects, institutions or guiding values) based on the meanings the things have for them as individuals. Secondly, meanings are derived from the social interactions people have with each other. Thirdly, meanings are managed and revised through an interpretive process used by individuals in dealing with the things they encounter (32). Accordingly, symbolic interactionism views meanings as 'social products' that are formed through the activities of people as they interact (32: p. 5). In other words, people's perception of who they are in relation to others and the social systems in which they live is worked out through their interactions with others. Feminist standpoint theory further shapes the methodological approach of this study. Feminist standpoint theory is an interpretivist approach that provides a methodology for understanding 'relations of power as a distinctive kind of obstacle to the production of scientific knowledge' (33: p. 219). One strand of standpoint theory holds that people who are marginalized or otherwise unheard are epistemically advantaged in understanding their position (34, 35). In other words, they are critically conscious and aware of their social position (35). Wylie counters criticisms that feminist standpoint theory is essentialist or individualistic by stating that women's position and understanding do not necessarily mean they have 'epistemic privilege of how or why their oppression originated or is maintained' but they do have an alternative knowledge and understanding that can be compared to the dominant worldview (34: p. 37). Feminist methods have traditionally taken a qualitative approach to data collection, rejecting the positivist approaches that emphasize objectivity and detachment, arguing instead for a more egalitarian, open and active process between researcher and participant (36, 37).

Recruitment

The study was advertised via postings on online recovery sites, on flyers and posters in recovery cafes, and through email distribution to colleagues and contacts who forwarded on to potential participants. Women who voluntarily chose to participate were included if they met the following criteria: identified as a woman, aged 35 or older who had a history of illicit drug use and self-identified as being in recovery from drug use (abstinent or low risk use). Individuals were excluded if they did not meet the inclusion criteria or self-identified as having mental ill health or other issues that might trigger distress during the interview or were non-English speakers. As the women contacted the researcher directly it was not possible to ascertain mental health status other than via their own self-assessment. However, the women were given information about the study and topics for discussion at first contact. They were also asked prior to the interview if they were happy to proceed and if there was anything that might cause them distress during the interviews. No-one declined to be interviewed, no-one indicated distress, and no-one withdrew prior to, during or after their interview. Non-English speakers were excluded due to costs incurred hiring translators.

Convenience sampling was used to ensure enough women were recruited within the time available and to avoid delays to fieldwork. As this was an exploratory study, it was not deemed necessary to undertake probability sampling. For example, there was no intention of analyzing data by characteristics such as race, social class, or sexual orientation. There was an attempt to ensure the views of women from different geographical areas were included to minimize the clustering of participants from predominantly urban areas in Scotland. Recruitment for studies that explore the views of people with lived experience of using drugs in the United Kingdom frequently focus on treatment and support services in urban areas, consequently, the voices of women from rural areas are heard less often (38, 39) hence the effort to include them in this study. Voluntary and other non-statutory organizations working with women who have used drugs were contacted in coastal towns on the east coast of Scotland and towns in the far north and south of Scotland. All these areas are rural or semi-rural. Recruiting from these areas met with varying degrees of success and therefore, women were recruited from the North, West and East of Scotland and the North-East England from a range of rural, semi-rural and urban areas.

Topic guide and interviews

The topic guide was piloted and developed by the author, as part of their Master's thesis, with nine women from Scotland in mid-life and older age who identified as in recovery from illicit

TABLE 1 Open and Selective coding examples.

Theme		Open coding	Selective coding
Relationships	…when your home life is just as bad as at school then I think that's why I first started taking amphetamines because it was like 'yeah'. Instead of being miserable all my life it was like 'yeah this is a happy feeling.	Childhood School Family dynamics Drugs_sense of belonging Looking back_remembering	Belonging
	And I do find it quite easy to cut people out now, it took a long time but no I will not take it. I think that's maturity. Maturity.	Breaking social bonds Ageing_Older Control_in control	Disconnecting Ageing
	My other brother has just served 5 years for drug dealing. Hence why I live 200 miles away from my family. Because I work in [*criminal justice post*] I cannot associate with that type of person. And I think that's one of the biggest things I've learnt is that a lot of people from my past, I've kind of had to leave them there.	Breaking family bonds Breaking social bonds Siblings Identity Changing roles & responsibilities Recovery_challenges Employment	Disconnecting from family
	If I think about all the money I spent and what I could've done but it's gone now so it's just get on with it. Yeah do not sit and get upset and go 'I could've done'. It's gone. That's it. So yeah everything else is just building. Me and my mum got a good relationship now and pretty much everybody I talk to now I've got a good relationship whereas before I just didnae bother with anybody.	Looking back_remembering Recovery_work in progress Building_Rebuilding Mother Isolation Connectedness_belonging	Building Reconnecting
	I think that's maybe why I was nervous. Probably starting to come to the recovery cafes because I thought it's all going to be teenagers and young people. And I think that's what older women think. 'oh it's not for me. It's not for me its for younger people.' You know. And we have such a laugh when we are making jewellery and things like that. You know some of the women they have got amazing stories and they are so… like… …well like they are different to guys aren't they. They're so supportive of each other like really genuine.	Recovery Making connections Stigma_felt Bonding capital Women as support Ageing_Older Connectedness_belonging	Connecting Belonging Building Ageing

drug use (40). The advantages of piloting the topic guide was that it helped hone the questions, identified challenges in the interview process, and enabled the identification of follow up areas of further interest. The topic guide is available on request from the author. All the interviews were carried out by the author, (at time of interviews) a 50-year-old woman with 17 years' experience in the field of substance use research, working in both academic and third sector (not-for-profit) settings.

Analysis

An inductive analytical approach was used in this study. This approach develops concepts and themes from the data and is an iterative process whereby the data are collected and analyzed simultaneously (41). The interviews ranged in length between 68 and 182 min (mean average 131 min) and were transcribed verbatim by the author. To ensure their accuracy, a sample of five transcripts were checked against the recorded data for quality control and seventeen participants were given the opportunity to read through their transcripts. Two participants did not have an opportunity to check their transcript as their contact was through a third person. Maintaining the women's confidentiality was crucial and as such their transcripts were not forwarded. Of the 17 who were given the opportunity to read and check their transcripts, 12 took up the offer. No participants raised any issues, corrections or complaints.

The transcripts were analyzed using Braun and Clarke's thematic analysis technique (42). The qualitative software package NVivo 11© was used to code and categorize the data. The interview transcripts were coded through six phases: familiarization with the data, transcription, initial coding, searching for themes, reviewing themes, defining themes, and report writing. Transcribed interviews were read through at least twice for familiarization and a coding framework was developed as interviews progressed to identify themes and sub-themes from the interviews. Borrowing from grounded theory (43), open and selective coding was utilized to provide a systematic approach to the development of themes. Selective codes were developed based on verbs instead of nouns thereby focusing attention on the social processes in the data (44). An example of open and select coding under the thematic code 'relationships' is shown in Table 1. Several top-level themes were already identified from the pilot work and related to the study aims. For example, *a priori* themes included relationships, ageing, and recovery. The coding was further refined as interviews progressed and with repeated reading of the transcripts. The author maintained a coding book, in which codes, descriptions, and examples were detailed and discussed with the author's PhD supervisors. No discrepancies arose between the PhD supervisors and author as the codes and descriptions were presented. Supervision

meetings were monthly, and both provided informed support throughout the entire period of the PhD, including through the fieldwork and analytical stages. The author is an experienced qualitative researcher with extensive coding experience and both PhD supervisors are highly experienced and published female researchers and academics in the area of addiction and recovery.

Ethical considerations

Women who expressed an interest in the study were given a participant information sheet and at least 2 days to consider whether to take part before signing a consent form. The study was approved by the University of Glasgow's College of Social Sciences Research Ethics Committee (application no: 400170200). The women were assured complete anonymity and all names used in this and other papers are pseudonyms.

Results

Sample

Nineteen women with a history of using illicit drugs and in self-defined recovery participated in the study. The women were aged between 36 and 60 years (mean average age 47) and resided in a mix of urban ($N = 10$), rural ($N = 6$), and coastal locations ($N = 3$) across the North of England and Scotland. The participants used a range of drugs including heroin, powder cocaine, crack-cocaine, and cannabis for between 7 and 47 years (mean average 21 years). The age at which the women self-reported stopping illicit drug use ranged between 26 years and 54 years of age (mean average 34 years of age). The women's recovery time was self-reported and ranged from 6 months to 18 years (mean average 9 years). At time of interview, 16 women reported no drug use and three women reported occasional low-risk drug use, including intermittent use of cocaine, cannabis, alcohol, amphetamines and heroin (low-risk is defined as illegal drug use at minimum level causing no psychological, legal, employment, family or health problems) (45: p. 83). Eighteen women had children (ranging from a months old baby to adult children). Just over half ($N = 10$) reported being in an intimate partner relationship at time of interview, the remainder were single. Though not asked, five women described their backgrounds as working class ($N = 3$) or middle-class ($N = 2$). At interview, nine women were in paid employment, seven volunteered their time and skills (five of those in recovery groups), one attended college, two were not in employment. Seven women had spent time in prison, none were currently involved in the criminal justice system. No details on sexual orientation, income or education levels were asked for or given. All the women were white Scottish or English.

Remembering and reimagining belonging

During childhood and adolescence, young people come to know the social groups to which they belong and wish to connect to through various forms of socialization (46). Gillian (aged 40, recovery 10 years), said of her early heroin use: *"I thought, this is what I want to do every day for the rest of my life. Now I know that I belong somewhere."* Gillian's sense of belonging to a drug culture gave her a sense of purpose in life: *"It was the first time that I thought, this is what life's about. I felt me calling in life."* Like many of the women in this study, Gillian's early memories of a sense of self was as the '*outsider*'. Other terms the participants used to describe themselves when they were children and adolescents were: '*a fuck-up*,' '*not part of things*', '*scapegoat*', '*never felt valued, always felt like the oddball*,' and '*a kinda weird kid*'. These feelings and identities as oddballs and misfits were felt as adults too. For many, their memories of themselves as children and sense of their place in the world resurfaced during the interviews, or as Lorna described them, were '*reimagined*' in adulthood. Remembering family life as children, some of the women spoke about experiencing domestic violence in the home, of a sense of not belonging and for a few, time spent as a looked-after child in foster care or children's homes. Leaving home was a source of escape from the fractious family life they had experienced. As adult women, managing these family relationships in a healthy way were important. For some of the women, the sense of alienation felt as an adult was a continuation of the sense of alienation felt as a child and adolescent.

Disconnecting from the social

As noted in the introduction, some people who use drugs experience a sense of alienation from significant others and the wider social world (6, 18). The women in this study experienced such feelings of estrangement and separation from others:

> *"People's attitudes… when you become a non-person. Where you become your disease. Where you become just a junkie. You become that label, you know, and that really rubs with me because it is again that rejection. Rejected by society because I'm not conforming to the certain standards that you require me to conform to because I'm suffering and we don't want suffering people in society"* (Lorna, age 53, recovery 18 years).

Lorna's feelings of rejection from society underpinned her sense of being an *outsider* and a non-conformist. Claire, aged 39 and in recovery for 18 months, decided to finally quit after using drugs for two decades when she realized there was '*nothing and nobody left*' to help her. For some of the women interviewed, it was the disconnection and isolation brought about by their use of drugs that encouraged their move into abstinence and recovery. However, leaving behind the drug-using settings and culture was challenging for others. Ruth, for example, spoke about the sense of loneliness she felt in the early days of her recovery and how she returned to her drug-using networks to reduce the social isolation she experienced:

> *"I would like go to [Narcotics Anonymous] meetings. I would just … I would see people there and then I'd come home and I'd be in by myself and then you can only do that for so long, like the fear of creating new relationships with people. And then coming home and feeling isolated. There was that in-between bit so I ended up the fear of starting new relationships was too much so I just turned back to people I knew because the loneliness was kinda getting to me"* (Ruth, age 36; recovery, 10 years).

Ruth was learning, in the *in-between,* to deal with her fear of developing new relationships without using drugs. Going to Alcoholics Anonymous meetings was '*scary*' while communicating with people was difficult, *'I could not look anybody in the eye, if somebody spoke to me I got all flustered… I really struggled…*' Alleviating the loneliness she felt at this stage in her early recovery, Ruth returned to the people she knew and felt comfortable with: *'the same people that I'd used with.'* Working on her confidence and self-esteem was crucial to Ruth's recovery, not only from drug use but from the associated lifestyle and intimate relationships that accompanied it:

> *"I still felt like I wasn't worth anything, I didn't deserve a good life, sort of thing. I was still attracted to people who didn't treat me right. But in the last three years that's really changed because I realized I was still making the same mistakes and I realized I was headed back down that path of picking up drugs again and I had to really look at why that was and it was because I was still living in the chaos… I found it really hard to build relationships with people and that was just really like I had really low self-worth and really low self-esteem and I didn't think I was good enough for people to like"* (Ruth, age 36; recovery, 10 years).

Feeling undeserving and unvalued, Ruth's ability to make connections and build new relationships was difficult and took time to develop. It was only after 7 years into her recovery that Ruth felt able to move on from the drug-using networks she had stayed connected to while abstinent. Ruth's example clearly shows the precarious nature of recovery for some women. Moving from the familiar environment of drug use with all its networks, connections, and routines, to the unknown territory of abstinence, recovery, and fellowships (such as Alcoholics Anonymous, Narcotics Anonymous and Cocaine Anonymous) is daunting. Returning to environments that are familiar, even if they carry the threat of danger, might be preferable to being isolated and feeling alone, especially in early recovery.

Levels of social and economic capital can impact on an individual's ability to preserve or terminate relationships. This is pertinent in drug-using communities where individuals may wish to put physical distance between themselves and drug-using peers but are unable to due to circumstances. Without recourse to alternative housing and with family living close by, Grace's connections to her relatively recent drug-using past were disrupted and displaced by her social distancing from the local drug scene:

> *"The friends you think you've had over the years. People coming to your house for coffee and going and taking kids to school and whatever. They just all kind of disappeared when I stopped taking drugs and stopped people coming to my house, when I wasn't available for their needs. I really thought they were my friends. And I would think to myself I know how they treat other people but thought they wouldn't treat me like that"* (Grace, age 49, recovery 5 years).

After 5 years in recovery, Grace was still coming to terms with the disruption and disconnection from her social networks. Grace felt a sense of loss and disbelief that the friends she had known for years – shared her home and drugs, confidences, and childcare with - had '*disappeared*'. Having lived in the same house for over two decades, she felt a sense of shared history with these former friends. Nevertheless, to connect to and rebuild supportive social networks, the women in this study had to undergo processes of disconnecting, not just to those in drug-using networks but also to those considered no longer helpful for sustaining healthy relationships.

Disconnecting from the family

Disconnecting from relationships the women considered problematic, unhealthy, and unhelpful was not without its challenges but letting go of long-standing relationships in order to maintain recovery was vital for some. The relationships the women had with their families, and particularly their mothers, were often complicated. The women's mothers had in some cases experienced trauma such as rape and domestic violence eliciting empathy and sympathy from the women. Nevertheless, maintaining a sense of control in these relationships was difficult for some of the women interviewed. Breaking, losing, or minimizing contact were ways in which the women were able to manage these difficult relationships. Leaving behind the difficult family life they experienced and managing these relationships in a healthy way was important to the women and their recoveries. Evelyn, for example, found new connections and belongings after moving to the United Kingdom mainland. Her sense of belonging was connected to her new partner, his family, their baby and her new flat in a new city. Leaving behind the island where she had lived all her life, her family and the legacy of her drug use was not without some fear: *"Shitting my pants because I've always lived on that shitty island but do you want to know something. It's worked."* Life had become extremely difficult for Evelyn and her relationship with her mother had broken down to the extent that she did not contact her for over a decade. This strategy of physically and socially distancing herself from her former drug-using environment and negative family influences enabled Evelyn's recovery: *'… that worked for me. Because I felt like I was always getting caught up in madness.'* In recovery, Evelyn eventually reconnected with her mother but set boundaries to help her maintain some control in their relationship and her life:

> *"What I need to do is boundaries to keep what I've got, know what I mean? I'm going to fight for that because my mum's, and I don't mean this in a nasty way, my mum's back there. My mum's older right… If I start lowering my boundaries and be like start going to pubs and clubs with my mum then that's me inviting the devil in"* (Evelyn, aged 38, recovery 3 years).

In her new environment, the support she received from her current partner and his father, in addition to outside support from social services, contributed to Evelyn's ongoing recovery and her ability to care for her baby. Nevertheless, Evelyn's re-building of a 'new' life meant disconnecting from parts of her past life. She said of the island she had left, *"I had to leave there to get my recovery."* Of people she had known, they *"serve their purpose, you'll outgrow them, or they'll outgrow you or you just do different things on your journey."* Creating and setting boundaries with her mother and others in her social network enabled Evelyn to gain a sense of control over her recovery and her ability to care for her baby.

Similar to Evelyn, Kerry had a difficult childhood and felt compelled to leave home when she was 16. Having spent years trying

to '*repair*' the relationship with her sister and mother, she eventually decided to stop doing so. In doing so, her mental health improved:

> *"I don't see my mum or my sister. I haven't seen them in 11 years. We never got on growing up me and my sister. My mum didn't care less about what happened to me, that's what it seemed like. I tried like once I had my kids to try and repair the relationship but no. There's no point trying to fix something that's not going to fix is there? It's just making me more stressed and more upset, and I think I'm better off without that, and once I cut them out my life it was, it was a bit of a relief. I know that sounds awful, but I've got my close friends and my family. I've got my auntie and I'm happy enough with that"* (Kerry, age 43, recovery 5 years).

Having a supportive partner and network of long-held and trusted friends, Kerry felt able to break the family bonds with her sister and mother. Like Evelyn, discussing her mother raised uncomfortable feelings, particularly around the guilt Kerry felt for feeling the way she did. Kerry said: *"I know that sounds awful,"* while Evelyn stated, "*I do not mean this in a nasty way.*" Relinquishing the obligations women think they have to their mothers is perhaps one of the more difficult relationship transitions women who use drugs or in recovery experience. For example, Janine said of her mother: *"I let her go. I let her go. Ehm _ _ yeah. Big, big taboo thing for a daughter to do, but I had to do it."* The women internalized what they perceived as the socially normative expectations of how a daughter should act and feel. However, moving into their recovery, these expectations differed from their own perceptions of their needs and desires as women in their own right, rather than the daughters they thought they should be. For some of the women, the tension between the expectations of others and their own aspirations led to feelings of guilt.

The expectations, attitudes, beliefs and values within families and society more generally are important elements of the social context in which recovery is performed (11). And, of course, women are daughters to fathers too. For some women in this study, relationships with their fathers were also challenging. Many had grown up with violent fathers who abused their mothers and sometimes the women themselves as children, and their siblings. Fiona talked about breaking the relationship bond with her father '*bit by bit*' and, like Janine, she considered it outside the norm for a daughter to do this to a parent:

> *"I've always known my dad's been a violent bully. But how, as a woman, do you stand up to that? How, as a daughter, do you challenge that? And I won't ever say it was okay, I kind of distance myself from him because I don't like him. And I refuse to be around people I don't like. One of my biggest sayings is 'if you don't bring joy to my table, there's no seat for you.' And I distanced myself little bit by bit"* (Fiona, age 44, recovery 17 years).

Even as women in mid-life with all their life experience, there was a questioning of appropriate and socially acceptable behaviors in relation to challenging parents and disconnecting from the parent–child relationship. These findings are important, for while there is a lot of research exploring women's relationships with children and intimate partners, there is far less that engages with women's relationships with their parents and their mothers in particular. Most of the women's interviews included discussion around their mothers and often how their mothers challenged and undermined the women's sense of self-worth and self-esteem.

Building and reconnecting

Building a credible abstinent identity relies on the symbiotic nature of relationships. Abstinent identities are reflected to some degree in how others perceive and believe in the veracity of the performance (28). Reconnecting to people, whether family or the wider world requires work and for some of the women they spoke about this in terms of '*building*': building connections, building self-esteem, building on the work they had already done on themselves. In Claire's extract, she discussed 'building' the relationship with her family. She showed how, in recovery, trust was built up over time, how she was present not just physically but also emotionally when she was with them. Claire recognized the differences between her past and current relationship with her children, and found it emotionally difficult to contemplate:

> *"… other important relationships are with my family now. Building on that. It's taking time to put things right and for them to trust me but I'm just, it's different now because I'm with them now, I'm with my kids, I'm present with them and a lot more honest with them. I can listen to them a lot more than I did"* (Claire, age 39, recovery 18 months).

Multiple periods of abstinence followed by evermore chaotic behavior engendered a lack of trust and confidence in Claire's recovery, and this was something she had to work at proving to her children, parents and other family members. The person recovering from drug use needs to prove to others that their abstinent identity is genuine, and this often takes time.

Building relationships with family can be difficult, particularly when there is tension between people's remembering of them in the past and their expectations of them in the present as shown in Sophie and Maya's extracts below:

> *"Aye and even like building relationships with your family. If it doesnae work, it doesnae work. You cannae keep you know pedaling the bike when the tyres are flat… for a lot of times me being the facilitator of making things right, of doing things, being the carer. That suited everybody in my family and then now that I'm not doing it, somebody else has to do it and eventually they've had to become alright with that… it's like we need to rebalance this because that's the only way that families can coexist. It needs to be balanced"* (Sophie, age 55, recovery 5 years).

> *"I'll be saying to my older brother soon enough 'I am not, I am no one's carer and I don't want to be. I don't want to assume that role. I don't want to take on that role any longer for my mum. My mum's going to be leaving the care unit, find her somewhere to stay down where you live' because I spent all of my days being a carer, caring for people and I don't want it. I don't want it anymore. I've had it imposed on me and I'm in a position now where I can say no, I deserve to have my life and focus on me"* (Maya, age 42, recovery 14 years).

In the past, Sophie's role was to be the '*carer*', the go-to person in the family. Despite some pushback from family members, Sophie's refusal to continue in the carer role resulted in a recalibration of her family relationships. Maya was still in the process of renegotiating her role as carer within the family but like Sophie, she was determined to develop a new dynamic in which she would have more control over the demands made on her. Recovery is not just about the actions of the person who is abstaining, it is also about the actions of family members, relinquishing their patterns of behavior toward and expectations of the women's roles within the family.

Building the foundations for healthy relationships with the self and others is important for maintaining a sense of being valued. Ruth explained how she builds feelings of self-worth incrementally: "*it was just like loads of wee things like that kinda thing that just kinda built me bit by bit.*" Ruth uses the lessons she learned from her evolving relationships in recovery as a foundation for relationships with family and others. In turn, this leads to a better sense of self – one in which she can hold her '*head up*' and look people '*in the eye.*' In other words, one in which she feels equal to others and not less than:

> *… that's kinda rippled out into, that's the foundation of how like I started, changed my view of relationships and how people should be treated and how you should be treated yourself and I've kinda took that and built on it and expanded it into my immediate, like my family. My siblings and my mum. And worked on my relationships with them from that"* (Ruth, age 36, recovery 10 years).

Ruth acknowledges the hard work and time that is required to rebuild relationships and reconnect with family members: *"I had to work really hard. Be really patient … it's just like chipping away."* Having put the effort and *hard* work into her recovery, Ruth finally felt validated by her mother:

> *"She's just started saying like how well, how proud she is, how far I've came, how well she thinks I'm doing, how different my life is, how different I am as a daughter and a sister, and how she knows she can rely on me and if I say I'm going to do something I do it… that's the kinda stuff you've been chasing your whole life isn't it? Is for your mum to acknowledge you and give you a bit of praise and tell you that kinda stuff"* (Ruth, age 36, recovery 10 years).

Rebuilding relationships in recovery requires managing the expectations of other people, whether family or wider society. As the women age into their recovery, older parents may create additional caring responsibilities that women in drug use recovery will have to address and negotiate, potentially with other family members.

Connecting and belonging

Recovery communities play a seminal role in nurturing and developing a sense of connectedness and belonging. They can offer a 'collectivity' through shared meanings and experiences and offer resources and moral guidance to help members follow an alternative life-path (47). Although most had engaged with recovery communities and fellowships at some point in their recovery, those in early recovery (<5 years) were more likely to report connections to other women in recovery whereas the women in long-term, stable recovery were more likely to report a wider field of connections beyond other recovering individuals. Entering new spaces and locations, building, and maintaining new relationships requires individuals to learn new habits, new ways of communicating and new ways of being. This 'boundary crossing', (47: p. 22) if successful, enables individuals to acquire new knowledge and experiences that can help empower them to cross other social boundaries. As Janine's experience demonstrates, recovery communities are one element in which women who have used drugs can cross boundaries of connection and belonging:

> *"… where I'm from a working-class town, you don't get to meet you know _ people from other well you know what it's like in the UK, its different classes, different educations, different countries. Because of the 12-step program, AA, NA, I've met people from all over the world. Gained different perspectives, different viewpoints. It's took me out of that West coast of Scotland, Irish catholic mentality and opened my mind…"* (Janine, age 47, recovery 21 years).

For Janine and some of the other women, recovery communities offered opportunities for wider social participation. Within and out with the fellowships the women met and socialized with people from different social classes and backgrounds, learned new ways of being and further engendered a sense of connection and belonging by building on and reinforcing their social capital.

In marginalized groups, individuals who achieve successful boundary crossing can be seen as role models for others (47) and offer opportunities for meaningful social bonding. Nina described how the recovery community offered a '*tight bond*' with other women - a bond that allowed Nina to *'speak the same language*' and express herself in ways she could not with her family:

> *"It's quite refreshing to have a group of women who are all there to watch each other's backs … I can understand how she's feeling and why she's feeling that and well you know there's a connection there"* (Nina, age 55, recovery 12½ years).

Unable to talk with her family about her past and having moved back to Scotland after two decades away, the bonds Nina developed with the other women were built on shared understandings and a sense of protection which were important in helping develop trust within the group. Nevertheless, being able to talk about their past in a safe and non-judgmental environment is just one element of developing connections and a sense of belonging. Connecting and bonding with others is also about '*being heard*', knowing and feeling that your views are listened to and regarded by others. It is the reciprocity of human connection that is essential for engendering a sense of connectedness and belonging (48):

> *"Just being heard has built that esteem and that value. That is one of the most powerful things that I've experienced. Being heard"* (Janine, age 47, recovery 21 years).

Making connections leads to a process of bonding and ultimately to a sense of belonging to a '*tribe*'. In addition, connecting, bonding, and belonging with others in recovery communities helped some women develop skills and increase their feelings of self-worth.

Discussion

Connecting and belonging are active processes that are relational, negotiated and performative; processes that people do through their social interactions (16). Individuals must weigh the advantages and disadvantages of connecting and belonging as creating opportunities or restrictions on ways of being. This is illustrated in the women's interviews regarding their move out of drug use, their connections to families and their engagement with recovery communities. Similar to findings from other studies (14, 24, 49), modifying and transforming relationships were common among the women. Building or re-building positive relationships and protecting themselves from negative relationships are important elements of women's recovery from substance use (26). In changing their lives and moving from drug use to recovery, the women in this study lost, gained and rebuilt relationships along the way. Their sense of self was constructed in their interactions with others and in the idea of commonly shared social values, standards, and conventions. Belonging also required being able to participate in the world. In other words, participation and belonging required acceptance by others.

The findings from this paper supports research conducted with women and older drug users elsewhere. As with Anderson and Levy's work on older drug users (6), women in this study who experienced periods of social isolation found re-connecting with the wider social world challenging. As described by Grace and Ruth, personal networks including drug using associates may be difficult to relinquish, particularly if they provide social, emotional or practical support (8). Women may feel challenged in their relationships with parents, especially their mothers (11). Relationships with mothers (and other family members) can be positive to women's recoveries offering much-needed emotional and practical support but in some cases, women may continue to feel stigmatized or pressured by family members (25). The pressures that arise can be both practical in the sense that once women are deemed 'recovered' by family members there is an expectation they will fulfil tasks and roles commensurate with gendered expectations. On the other hand, women may feel guilty for not wanting to take on these roles or internalize a sense of shame or guilt at wanting to distance themselves from family influences they consider detrimental to their recovery.

A few women in this study expressed empathy toward their mothers for the sometimes extremely difficult lives their mothers had experienced but at the same time they wanted to develop boundaries and maintain some level of control in their relationships. Research suggests some family members do not have essential knowledge around addictive drug use and recovery which can lead to unrealistic expectations placed on women, especially in early recovery (50). The women's interviews in this study add another element to Strauss and Falkin's (11) work by highlighting the emotional ambivalence and guilt that some women may feel in limiting or cutting contact with parents deemed unsupportive. Managing other people's expectations of them while convincing others of their abstinent identity, requires diplomacy and boundary-setting that some women in recovery might need to learn (27). Family members, including children, may enable recovery or become a relapse risk (50). Creating personal boundaries and limiting contact are effective ways of managing challenging relationships within the family (11, 25, 47) and are also mechanisms by which women can take ownership of their wider social relationships and enhance their sense of agency (22).

The study findings mirror findings from elsewhere (6, 7) that show recovery is an ongoing process in which women set boundaries with others, assume more control over relationships and develop a recovered identity that others can view as authentic, honest, and genuine. Making connections and belonging to social networks unrelated to active drug use encourages women to develop identities and sense of self as women in their own right, rather than women defined by drug use. This study adds to the body of research on women in recovery from drug use by looking at the experiences of an age and gender cohort that remains relatively under-researched, namely women who are in mid-life and older.

The research question asked what influence social relationships have on women's sense of self as they age into drugs recovery. The answer is not straightforward. The direction of influence during recovery is complicated and the women's interviews demonstrate it is a symbiotic process in which relationships, identity and recovery are all highly interdependent. This investigation of women in recovery from illicit drug use shows that a period of abstinence and sobriety can give women space to perform the necessary emotional work and adopt the language of self-acceptance that recovery communities and fellowships espouse. This may encourage women to engage in mindful reflection that can lead to improvements in self-esteem which in turn can impact positively on their relationships with others. Positive reinforcement from others through new relationships and activities can help contribute to better self-concepts that help maintain recovery; one reinforcing the other in a constant interaction. Distancing themselves from a user identity and creating a new abstinent identity is pivotal to the process of women's self-acceptance. Having the opportunity to connect to others in an actively positive way can counter women's lack of self-belief brought about by gendered expectations, personal differences and structural and economic inequalities. Moreover, recovery communities can offer opportunities for personal growth and development. They offer space to lead, to take control and to help and support connections to others while also creating a sense of belonging.

Further work around mid-life and older women's relationships with their parents, and mothers in particular, could aid understanding of family dynamics and how they might help or hinder recovery from drug use. Working with significant others and adult family members in the treatment of women with lived and living experience of drug use using behavioral and systemic approaches may help engage women and improve recovery outcomes (51). As Rowe has argued, attempting to treat people who use drugs outside of the family context may seriously undermine individual recovery (51). Gathering evidence on this issue could help family support and treatment services assess the need for developing support programs and materials for women in mid-life and older age actively using drugs or in recovery.

Conclusion

This paper explores from women's standpoints, and within the context of mid-life and older age, their relationships within and out with the family thereby providing greater depth and understanding on a relatively under-researched area in United Kingdom substance use research. In doing so, the paper provides an original and important contribution to studies that seek to understand the intersection of gender, drug use recovery, aging, and social and family relationships.

Limitations

This was an exploratory study of 19 women in mid-life and older age across the North East of England and Scotland. As with qualitative inquiries in general, the findings of this study cannot be said to represent the relationship experiences of all women with a history of illicit drug use. Utilizing convenience sampling may have resulted in sampling bias therefore speaking with a greater number of women in mid-life and older from across the United Kingdom would elicit a wider range of views and experience while talking to a larger number of women in their fifties and sixties could elicit further information on the impact of aging on women's family relationships. For example, how do older women navigate and negotiate family expectations around caring for elderly parents? Moreover, including older women from other underserved groups such as women experiencing homelessness, women of color and women in the criminal justice system could add further insights into relationships and recovery among women in mid-life and older age with histories of illicit drug and other substance use. There may have been an opportunity to compare the women's recovery journeys across different income and education levels and according to sexual orientation, however these demographic details were not sought or provided. Reflecting on the analytical process, two or more coders to allow for inter-rater agreement on a coded transcript would strengthen the analysis. Nevertheless, this study was conducted by an experienced researcher and supervised by experienced and published academics within the field of addictions and additive behaviors.

Data availability statement

The data that support the findings will be available in University of Glasgow's repository for research data (Enlighten: Research Data) and the United Kingdom Data Service (University of Essex) following a 12 month embargo from the date of publication to allow for publication of research findings. Requests to access the datasets should be directed to ashaw419@gmail.com.

Ethics statement

The studies involving human participants were reviewed and approved by University of Glasgow's College of Social Sciences Research Ethics Committee. The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

AS was responsible for the conceptualization and design of the study, fieldwork, data management, and analysis.

Funding

This was a PhD study that was funded by the Economic and Social Research Council (ESRC (DTC) Main ES/J500136/1).

Acknowledgments

The author would like to thank the women who participated in this research and everyone who helped with recruitment. Also, my PhD supervisors Dr. Lucy Pickering and Professor Gerda Reith for their help and support throughout the PhD. Finally, thank you to Professor Tessa Parkes, Dr. Hannah Carver and Dr. Hannah Hale for reading through the draft versions of this paper and their helpful comments.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

References

1. Laudet AB. What does recovery mean to you? Lessons from the recovery experience for research and practice. *J Subst Abus Treat.* (2007) 33:243–56. doi: 10.1016/j.jsat.2007.04.014

2. Neale J, Nettleton S, Pickering L. *The everyday Lives of Recovering Heroin Users*. London: Royal Society of Arts (2012).

3. Best D, Gow J, Knox T, Taylor A, Groshkova T, White W. Mapping the recovery stories of drinkers and drug users in Glasgow: quality of life and its associations with measures of recovery capital. *Drug Alcohol Rev.* (2012) 31:334–41. doi: 10.1111/j.1465-3362.2011.00321.x

4. Scottish Government. *The Road to Recovery: A New Approach to Tackling Scotland's Drug Problem*. Edinburgh, Scotland: RR Donnelley (2008).

5. Surrey JL. *The "Self-in-Relation": A Theory of Women's Development*. Wellesley, MA: Stone Center Working Paper Series (1985).

6. Anderson TL, Levy JA. Marginality among older injectors in today's illicit drug culture: assessing the impact of ageing. *Addiction.* (2003) 98:761–70. doi: 10.1046/j.1360-0443.2003.00388.x

7. Bellaert L, Van Steenberghe T, De Maeyer J, Vander Laenen F, Vanderplasschen W. Turning points toward drug addiction recovery: contextualizing underlying dynamics of change. *Addict Res Theory.* (2022) 30:294–303. doi: 10.1080/16066359.2022.2026934

8. Tracy EM, Martin TC. Children's roles in the social networks of women in substance abuse treatment. *J Subst Abus Treat.* (2007) 32:81–8. doi: 10.1016/j.jsat.2006.06.008

9. Hamilton AB, Grella CE. Gender differences among older heroin users. *J Women Aging.* (2009) 21:111–24. doi: 10.1080/08952840902837129

10. Jessup MA, Ross TB, Jones AL, Satre DD, Weisner CM, Chi FW, et al. Significant life events and their impact on alcohol and drug use: a qualitative study. *J Psychoactive Drugs.* (2014) 46:450–9. doi: 10.1080/02791072.2014.962715

11. Strauss SM, Falkin GP. Social support systems of women offenders who use drugs: a focus on the mother-daughter relationship. *Am J Drug Alcohol Abuse.* (2001) 27:65–89. doi: 10.1081/ADA-100103119

12. Thom B. Women in recovery In: R Yates and M Malloch, editors. *Tackling Addiction Pathways to Recovery*. London, UK and Philadelphia, PA: Jessica Kingsley Publishers (2010). 52–69.

13. Koenig TL, Crisp C. Ethical issues in practice with older women who misuse substances. *Subst Use Misuse*. (2008) 43:1045–61. doi: 10.1080/10826080801914246

14. Guerrero M, Longan C, Cummings C, Kassanits J, Reilly A, Stevens E, et al. Women's friendships: a basis for individual-level resources and their connection to power and optimism. *Humanist Psychol*. (2022) 50:360–75. doi: 10.1037/hum0000295

15. Kverme B, Natvik E, Veseth M, Moltu C. Moving toward connectedness–a qualitative study of recovery processes for people with borderline personality disorder. *Front Psychol*. (2019) 10:430. doi: 10.3389/fpsyg.2019.00430

16. May V. Self, belonging and social change. *Sociology*. (2011) 45:363–78. doi: 10.1177/0038038511399624

17. Allen K-A, Kern ML, Rozek CS, McInerney DM, Slavich GM. Belonging: a review of conceptual issues, an integrative framework, and directions for future research. *Aust J Psychol*. (2021) 73:87–102. doi: 10.1080/00049530.2021.1883409

18. McIntosh J. *Beating the Dragon: The Recovery from Dependent Drug Use*. London: Prentice Hall (2014).

19. Best D, Beckwith M, Haslam C, Alexander Haslam S, Jetten J, Mawson E, et al. Overcoming alcohol and other drug addiction as a process of social identity transition: the social identity model of recovery (SIMOR). *Addict Res Theory*. (2016) 24:111–23. doi: 10.3109/16066359.2015.1075980

20. Latimer SL. Human connectedness in nursing: a case study. *Contemp Nurse*. (2013) 44:45–6. doi: 10.5172/conu.2013.44.1.45

21. Crisp B. Belonging, connectedness and social exclusion. *J Soc Incl*. (2010) 1:123–32. doi: 10.36251/josi14

22. Antonsich M. Searching for belonging–an analytical framework. *Geogr Compass*. (2010) 4:644–59. doi: 10.1111/j.1749-8198.2009.00317.x

23. Goffman E. *The Presentation of Self in Everyday Life*. vol. *2002*. Garden City, NY: Doubleday and Company, NY (1959). 259.

24. Francis MW, Taylor LH, Tracy EM. Choose who's in your circle: how women's relationship actions during and following residential treatment help create recovery-oriented networks. *J Soc Work Pract Addict*. (2020) 20:122–35. doi: 10.1080/1533256X.2020.1748975

25. Gunn A, Miranda SG. Promoting recovery identities among mothers with histories of addiction: strategies of family engagement. *Fam Process*. (2020) 59:94–110. doi: 10.1111/famp.12413

26. Sanders J. *Women in Narcotics Anonymous: Overcoming Stigma and Shame*. New York, NY: Palgrave MacMillan (2014).

27. Wangensteen T, Hystad J. A comprehensive approach to understanding substance use disorder and recovery: former patients' experiences and reflections on the recovery process four years after discharge from SUD treatment. *J Psychosoc Rehabil Ment Health*. (2022) 9:45–54. doi: 10.1007/s40737-021-00233-9

28. Collinson B, Hall L. The role of social mechanisms of change in women's addiction recovery trajectories. *Drugs Educ Prev Policy*. (2021) 28:426–36. doi: 10.1080/09687637.2021.1929077

29. Matheson C, Hamilton E, Wallace J, Liddell D. Exploring the health and social care needs of older people with a drug problem. *Drugs Educ Prev Policy*. (2019) 26:493–501. doi: 10.1080/09687637.2018.1490390

30. Vogt I. Life situations and health of older drug addicts: a literature report. *Suchttherapie*. (2009) 10:17–24. doi: 10.1055/s-0028-1128135

31. Bachi K, Sierra S, Volkow ND, Goldstein RZ, Alia-Klein N. Is biological aging accelerated in drug addiction? *Curr Opin Behav Sci*. (2017) 13:34–9. doi: 10.1016/j.cobeha.2016.09.007

32. Blumer H. *Symbolic Interactionism: Perspective and Method*. Berkely and Los Angeles, California: Univ of California Press (1986).

33. Rolin K. Standpoint theory as a methodology for the study of power relations. *Hypatia*. (2009) 24:218–26. doi: 10.1111/j.1527-2001.2009.01070.x

34. Intemann K. 25 years of feminist empiricism and standpoint theory: where are we now? *Hypatia*. (2010) 25:778–96. doi: 10.1111/j.1527-2001.2010.01138.x

35. Skinner J. *The Interview: An Ethnographic Approach*. London, UK: Bloomsbury Publishing Plc (2013).

36. Oakley A. Interviewing women: a contradiction in terms In: H Roberts, editor. *Doing Feminist Research*. London: Routledge (2013). 30–61.

37. Vivancos R, Maskrey V, Rumball D, Harvey I, Holland R. Crack/cocaine use in a rural county of England. *J Public Health*. (2006) 28:96–103. doi: 10.1093/pubmed/fdl010

38. Tolland E, Kouimtsidis C, Reynolds M. Substance misuse among women attending family planning clinics in a rural area in Britain: prevalence and associated problems. *Drugs Educ Prev Policy*. (2003) 10:195–202. doi: 10.1080/0968763021000057718

39. Shaw A. *Exploring the Influence of Social Relationships on Identity, Drug use and Recovery among Older Drug Using Females. [Master's Thesis]*. Glasgow: University of Glasgow (2017).

40. Bryman A. *Social Research Methods*. Oxford, UK: Oxford University Press (2016).

41. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. (2006) 3:77–101. doi: 10.1191/1478088706qp063oa

42. Charmaz K. The search for meanings–grounded theory. In. JA Smith, R Harre and LangenhoveL Van. (Eds.), *Rethinking Methods in Psychology* (pp. 27–49). London, United Kingdom: Sage (1996).

43. Bryant A. The grounded theory method In: P Leavy, editor. *The Oxford Handbook of Qualitative Research*. USA: Oxford University Press (2014).

44. Carballo JL, Fernández-Hermida JR, Secades-Villa R, García-Rodríguez O. Effectiveness and efficiency of methodology for recruiting participants in natural recovery from alcohol and drug addiction. *Addict Res Theory*. (2009) 17:80–90. doi: 10.1080/16066350802401295

45. Perez-Felkner L. Socialization in childhood and adolescence In: J DeLamater and A Ward. (Eds.), *Handbook of Social Psychology*. New York, NY: Springer Publishing (2013). 119–49.

46. Pfaff-Czarnecka J. Multiple Belonging and the Challenges to Biographic Navigation. MMG Working Paper 13–05. Max Planck Institute for the Study of Religious and Ethnic Diversity; (2013).

47. Mahar AL, Cobigo V, Stuart H. Conceptualizing belonging. *Disabil Rehabil*. (2013) 35:1026–32. doi: 10.3109/09638288.2012.717584

48. Francis MW. Transitions of women's substance use recovery networks and 12-month sobriety outcomes. *Soc Networks*. (2020) 63:1–10. doi: 10.1016/j.socnet.2020.04.003

49. Boeri M, Gardner M, Gerken E, Ross M, Wheeler J. "I don't know what fun is": examining the intersection of social capital, social networks, and social recovery. *Drugs Alcohol Today*. (2016) 16:95–105. doi: 10.1108/DAT-08-2015-0046

50. Brown S, Tracy EM, Jun M, Park H, Min MO. Personal network recovery enablers and relapse risks for women with substance dependence. *Qual Health Res*. (2015) 25:371–85. doi: 10.1177/1049732314551055

51. Rowe CL. Family therapy for drug abuse: review and updates 2003–2010. *J Marital Fam Ther*. (2012) 38:59–81. doi: 10.1111/j.1752-0606.2011.00280.x

frontiers | Frontiers in Psychiatry

TYPE Brief Research Report
PUBLISHED 04 October 2023
DOI 10.3389/fpsyt.2023.1204882

OPEN ACCESS

EDITED BY
Yasser Khazaal,
Université de Lausanne, Switzerland

REVIEWED BY
Polychronis Voultsos,
Aristotle University of Thessaloniki, Greece
Jane Rich,
The University of Newcastle, Australia

*CORRESPONDENCE
Lynda Russell
✉ Lynda.Russell@glasgow.ac.uk

†These authors have contributed equally to this work and share first authorship

RECEIVED 12 April 2023
ACCEPTED 23 August 2023
PUBLISHED 04 October 2023

CITATION
Crawford K, Russell L, Graham S and Turner F (2023) Helping themselves and helping others: how the passage of time influences why mothers with addictions take part in research.
Front. Psychiatry 14:1204882.
doi: 10.3389/fpsyt.2023.1204882

Helping themselves and helping others: how the passage of time influences why mothers with addictions take part in research

Karen Crawford†, Lynda Russell*†, Sharon Graham and Fiona Turner

Mental Health and Wellbeing, School of Health and Wellbeing, University of Glasgow, Glasgow, United Kingdom

Introduction: Women with addiction issues are under-researched, despite previous evidence that women's needs are less understood than men's and that services can overlook gender-specific issues. The majority of women in treatment are mothers and a significant number have contact with child welfare services. The voices of these women are needed to shape and influence evidence-based treatment and service development.

Aim: To examine reasons and rationale for participation in research in mothers with addiction issues and involvement with the child welfare system.

Method: Reflexive thematic analysis was used on interview transcripts from two qualitative studies. Individual themes from each study were combined and analysed to develop themes covering both studies and at different timepoints in process of child welfare assessment or removal of child/ren.

Results: Three themes were identified (1) altruism; (2) personal benefit; and (3) empowerment. These mothers wanted to help with research. However, they also participated with the hope that this might facilitate the return of their children or help them to access support or services. A change over time was evident and, in those further down the line from child removal, there was a stronger want for their voices to be heard in order to advocate for other women and create change in services.

KEYWORDS

mother, participation in research, doubly vulnerable, addiction, child welfare, altruism, empowerment, personal benefits

Introduction

Men outnumber women in drug and alcohol treatment services, and this can result in women's needs being overlooked (1–4). In Scotland, rates of drug related deaths are higher than the rest of the United Kingdom and Europe (5), with women's deaths increasing at a faster rate than men (6). It is more important than ever to better understand the gender-specific needs of women with addictions to improve treatment, support services and outcomes for women.

Some gender-specific issues are already known, such as women having a poorer uptake of addiction services (7) and a greater likelihood of presenting with histories of trauma and interpersonal issues (1, 3, 4). Mothers with an addiction are also more likely than fathers to

be primary carers for their children, impacting on the time and resources that allows their full engagement with services (8, 9). There are also concerns that women in addiction services are under researched (2, 10) making it unclear if services are offering evidence-based interventions.

High rates of women engaged with addiction treatment services are mothers and many of those are involved with child welfare services (10, 11). Women who experienced the removal of their children through child welfare proceedings describe feeling stigmatised and powerless (12). The lack of research into their needs may contribute to this experience and their participation in research can provide a much-needed insight into their lived experience.

Women with addictions who have had children removed can be viewed as 'doubly vulnerable' (13); vulnerable because of their addiction and any associated mental health issues, and vulnerable because of their child welfare circumstances. Care must be taken with conducting research with people who could be termed 'vulnerable' in order to attempt to uphold the ethical integrity of research (14). When 'doubly vulnerable' we tend to exclude these individuals from research (15), thus avoiding ethical dilemmas.

When recruiting and retaining participants in research, gatekeeping can be amplified where professionals are worried about potential harm because of a participant's diminished competence, powerlessness, or disadvantaged status (16), jeopardising the generalisability of results (17). Gatekeepers "face an ethical conflict between enabling potential participants to exercise their right to choose whether or not to participate in the study and protecting potential volunteers against the perceived risk for undue harm" (18). When considering women with addictions, professionals may be worried about capacity to consent or that the timing of the participation is too risky in terms of the women's recovery or wellbeing.

These common barriers and dilemmas prompted us to explore, from their own perspective, mothers' reasons for taking part in two different studies involving mothers with addiction issues whose children had been removed from their care:

Study 1: a nested qualitative study exploring consent processes within the process evaluation of the Best Services Trial (BeST?), a Randomised Controlled Trial (RCT) which measures the effectiveness of an infant mental health approach when under 5 s are removed from the care of their parents. For more information on BeST? See Crawford et al. (19).

Study 2: a qualitative study focused on the experience of having children removed and contact with services in women within a Scottish Drug and Alcohol Recovery Service.

Research aim and question

This brief research report aims to better understand why 'doubly vulnerable' mothers with addiction issues would take part in research, particularly as there is potential for the research to touch on the sensitive issues surrounding the removal of their children at a time where there may be multiple demands on their time from statutory services.

Research question: what are these mothers' reasons and rationale for taking part in research?

Methodology

Design

This study is qualitative in design and is a secondary analysis of 30 semi-structured interviews with mothers in studies 1 and 2 above. Data were collected between 2012 and 2021, at which point the research questions were broader than that of the current study, and all data relevant to the current research question was extrapolated from the transcripts. Study 1 (Mothers in BeST?; MB) provided 18 transcripts and Study 2 (Mothers experience of removal; MR) provided 12 transcripts. Interviews lasted between 20 and 135 min (mean 73 min). Additional information about the studies can be found in Supplementary material.

Data collection

In Study 1, interviews were conducted by FT and KC face-to-face in participant's home or by telephone while in Study 2 they were conducted in an NHS Health Centre by LR. In the original studies, all data were collected by one-to-one semi-structured interviews, audio recorded and transcribed with consent. Transcripts were anonymised by removing any identifiable information (such as location, service names, and names of children, partners, family, and workers) and all mothers were allocated a pseudonym.

Description of the sample

Participants in the pooled dataset included 30 birth mothers with addictions issues, contact with child welfare services and had/have child/ren removed from their care. Additional details for context are provided in Table 1.

Ethics statements

Ethical approval was granted by West of Scotland NHS Research Ethics Service for both studies (Study 1—15/WS/0280; Study 2—17/WS/0255).

Data analysis

We based our design on the framework developed by Haynes and colleagues (20), where multiple qualitative datasets were combined for analysis. Both studies had commonalities in participants, design and methodology, such as familiarity of the concept and data collection methods of the original studies. In addition, the original studies plus this analysis were approached from a similar epistemological position of phenomenology.

Data were analysed using Braun and Clarke's six phases of reflexive thematic analysis (21) as this approach is suitable for a variety of theoretical frameworks and allows for flexibility in analytic scope. Due to the limited research in this area and our phenomenological stance, we used an inductive orientation to ensure that our analysis

TABLE 1 Demographic factors for sample.

Demographic factors	Years
Mean age	34 years
Age Range	21–49 years
Time since involvement with social work or removal of children	0 months–20 years
Child age at assessment or removal	Birth–7 years

was driven by the data. To ensure adherence to rigour and fidelity to the analytical approach, we were guided at all stages by Braun and Clarke's quality checklist (22) and their guidance on quality practice and reporting (23).

KC (Study 1) and LR (Study 2) reviewed data from their own studies. Individually, each went through every transcript and identified any lines or sections where participants discussed their motivations for participating in the respective studies. This data was then used to create new transcripts relating only to their reasons for participation in the study. Following Braun and Clarke's guidelines, KC and LR began familiarisation to become immersed in the data. This led to semantic and latent coding of the data and the generation and revision of themes. An individual report on the themes developed was produced for each data set. Following this individual process, FT repeated the process with the transcripts and themes from the individual data sets and developed themes for the combined dataset. This time the analysis, while still taking an inductive orientation, focused on areas of similarity and difference to see if motivation and reasons for participating in research were consistent or changed over time and between groups. SG reviewed the themes for the combined dataset and gave feedback as an expert by experience.

Researcher characteristics and reflexivity

The authors of this paper have various perspectives on the issues that this paper highlights: a clinical psychologist involved in research and clinical work with these mothers; a trial manager recruiting this target group; a mother with lived experience of addiction and child removal, who has supported women in similar situations and works in research; and a qualitative researcher and psychologist who has conducted substantial research with various stakeholders involved in providing support to this group. These multiple perspectives are viewed by the authors as an analytical strength in reflexive thematic analysis where subjectivity is viewed as a key feature (21). That said, we do recognise that our roles and experiences are likely to make us more inclined to support participation of 'doubly vulnerable' participant groups in research.

Results

Three themes were identified for understanding participants' reasons for participation in research, which are titled as altruism, personal benefits and empowerment. Altruism describes reasons for research participation in relation to helping others, personal benefits in relation to helping themselves, or improving their own situation and empowerment explores motivations for using research as a vehicle for using their lived experience to speak up and make change. See Table 2 for the themes and subthemes.

TABLE 2 Themes and subthemes.

Theme	Subtheme
Altruism	
Personal benefits	Participating to aid the return of their child/ren from care via the perceived mechanism of co-operation
	Participating to gain access to services and support
	Participating to help their future selves
Empowerment	Being heard
	Giving voice to others

As altruism has already been found to be a common factor for participating in research, we will describe this theme briefly and focus instead on the other two themes which provide a more nuanced insight into notions of "helping others" and other reasons for participating in research and highlight the temporal aspect of the themes depending on where mothers were in their timeline of assessment or removal of their children.

Altruism

In common with participants in research generally, many of the mothers taking part in both studies felt that the research was an opportunity to use their situation to generally "help" with research "*I hope it helps*" (MR Lynne); with some mothers having an overarching goal of helping children:

> "I am agreeing to it because I think it might help kids… I am hoping it helps other children as well." (MB Katie)

Personal benefits

A key motivator for taking part in the research was one of self-interest. Three sub-themes were identified: (1) participating to aid the return of their child/ren from care via the perceived mechanism of co-operation; (2) participating in order to gain access to services and support; and (3) participating to help their future selves.

Participating to aid the return of their child/ren from care via the perceived mechanism of co-operation

For participants whose children were recently taken into care (predominately MB Mothers), participating in research was about being seen to cooperate with social work processes and increase their likelihood of having their child/ren returned. Although the research is separate to social work services, participation was seen as part of a bigger picture of trying to get their children back, inextricable from other proceedings:

> "It is just part of getting my girls home… I thought it would help on my part as well, like to help to get the kids back." (MB Eleanor)

This aim to be seen as co-operative above all else meant that the position and reality of voluntariness was sometimes questioned. In the context of desperation for the speedy return of their child/ren, the notion of having choice over participation was seen as illusive even although understood by mothers as an explicit aim of the research process:

> "[There was] a choice not to sign up, but no choice because we were trying to look for a parenting assessment so at that time it was sort of a good time to sign up because it was the last option. I just sort of signed up and then got information later." (MB Paula)

> "It's happening whether you like it or not." (MB Alice)

In seeking to demonstrate co-operation, mothers in the MB group sometimes expressed a sense of confusion about the distinction between the research and social care proceedings despite clarification from the research team. This led some to perceive that their participation may be encouraged or endorsed by social work services. In the absence of certainty on this point, mothers were keen to participate *in case* it was seen as favourable by social work services. In other words, they were prepared to 'cover all bases' when it came to demonstrating their willingness to cooperate in the hope of expediting the return of their child/ren:

> "I wasn't really clear if this was actually something social work wanted me to do or if it was just completely voluntary on my behalf." (MB Janice)

However, this can be contrasted with the mothers in the MR group which included some mothers who were still undergoing assessment. Mothers in this study did not consider participation as a potential means of reunification possibly indicating that the setting and context of the research—recruited via social services prior to their parenting capacity assessment versus through their Alcohol and Drug Recovery Service—had an impact on both their understanding of the studies and their motivations for participation.

Participating to gain access to services and support

Some mothers perceived participation as a chance to address the issues that led to them having their child removed, with the MB mothers having the aim of improving their parenting:

> "I was willing to do anything or try and kind of grasp onto anything I could do towards like parenting classes or support… anything I could do regarding work on myself to get my daughter back." (MB Janice)

This sub-theme also housed perceptions about a need for support more broadly than the return of children from care from both groups of mothers:

> "I've got loads of demons to work through." (MR Annie)

High levels of unmet need in relation to parenting and their own mental health were apparent in the interviews:

> "It's very, very frustrating… My son is coming up for a year and I'm still waiting for my therapy and everything else." (MB Amber)

It is possible women were using the interviews to meet with professionals to discuss this unmet need and potentially access alternative sources of support that were not provided through their current support systems. Annie (MR), for example, asked if she could attend the Women's Trauma Group run by LR: "I can still work with you and [Nurse co-facilitator] and do all that, can't I?"

Mothers (predominately the MR group) also highlighted that they felt that contact with child welfare services and the removal of children was a difficult experience which exacerbated their pre-existing issues and increased their need for further support:

> "That's a huge trauma, losing your child." (MR Lisa)

Participating to help their future selves

Although mothers had insight into their current circumstances, most of the mothers, and particularly the MR group, also had hope that, one day in the future, they might be able to take their knowledge and experience and work with other mothers who have had children removed:

> "I am not fit to do work or anything, but if I did that's what I would do, addiction or…and to help mothers out there." (MR Lynne)

Mothers, again, positioned this aspiration within the context of a lack of support:

> "I would love to work, you know once I have dealt with all this stuff, in the future I would love to be able to work with parents of accommodated children because there is a total feeling of abandonment." (MR Toni)

While not able to work or provide the support they would like to at this time, by participating in research the mothers were able to perceive this as a step towards this goal and a means of being able to work and support mothers in a wider sense at a time where they were limited in their own ability to do so.

Empowerment

The data highlighted feelings of disempowerment experienced by mothers with addiction issues involved in the child welfare system, with taking part in research being viewed as a chance to speak up and to make change. This theme has two sub themes: (1) being heard and (2) giving voice to others.

Being heard

Most of the mothers felt that the social work processes they were involved in were focussed on their children:

> "The whole process from start to finish, it was all about my child which is understandable." (MR Lisa)

But this came at the risk of not having their own stories and experiences fully understood. Mothers, particularly those with more time between assessment/removal and the interview, spoke about wanting to have their own voices heard. Participating in the research provided them with an opportunity to discuss their experience from their point of view and to tell their own story or version of events. This was felt as empowering:

> "This is the first time I've ever been asked anything about how it feels to lose my children." (MR Annie)

> "The main thing is being heard." (MR Shona)

Some felt the information about themselves in social work reports was out of date or incorrect; by agreeing to the interview, they had an opportunity to tell their own story, with no possibility of an alternative version being construed.

Beyond being heard and "setting the record straight," mothers recognised the impact that the lack of voices of mothers may have on research or service development and planning. Researchers listening first-hand to their stories and experiences was seen as vital in developing and improving services:

> "Obviously you [researcher] are doing a lot of reading, but you are also coming to see people, you are getting involved and you are doing it right." (MR Annie)

Mothers felt that there was a whole narrative behind actions and decisions that needed unearthed in the research process. This was seen as integral to providing context to situations where children are removed:

> "I felt beforehand this could be really worthwhile, you know, a study taking place for, like, others to look from outside the box to see what is going on here, and yeah I was really quite, you know, I wanted to do it and really grasped onto it." (MB Janice)

> "We do not just have kids and give them away, that's not the way it is." (MR Jess)

Participating in research also gave mothers the opportunity to provide advice and feedback to social work services. A need for a more compassionate and constructive approach was highlighted, which mothers felt would aid the ability to change via focusing on *how* to improve. The existing approach was often seen as deficit-focussed:

> "I know they have got to do their looking into things and making sure things are as they are supposed to be, but constantly getting told that you were untidy, unclean or did not have enough food, there was never any …this is what you need to do…or anything like steering you in the right direction." (MR Shona)

Giving voice to others

During their interviews, mothers talked about other women they knew who had their children removed or more generally about the population of women who have had children removed.

Mothers who had support from partners, family, or friends or who had additional resources (such as finances, knowledge of the system or a lawyer) reported concerns about women without these same opportunities. They described feeling worried about these women and wanted to participate to increase knowledge and support for mothers who have had children removed but who may not have the same ability as themselves to be heard. Although related to notions of altruism, this sub-theme illuminates a more specific wish to "help" that represents a desire of mothers to not only be given their own voice, but to also be a voice and advocate for other mothers. This particular group of mothers saw participating in research as a mechanism by which inequalities in mothers' abilities to be heard could be redressed by those able to use their voice, representing more than just their own views:

> "You are just kind of left to flounder on your own and I am fortunate that I was able to source and get and ask and do, but it is for the people who…have come from the council schemes [social housing in areas of socioeconomic deprivation], the broken homes, the non-educated or whatever… haven't got the ability." (MR Toni)

> "If it wasn't for my mother, I do not know how I would have probably dealt with all that myself, probably would not have, and that's a shame because the thought of all those mothers that do not have that support, and just get their weans [children] taken away and that's it, and then they give up." (MR Lynne)

Discussion

Mothers gave rich descriptions of their reasons for taking part in research. The themes suggest that participation in research for this group is multi-faceted, just like other participant groups (24–26). While aiming to improve their own situation was a key motivator for participation, mothers also gave descriptions of participation that included benefits related to empowerment, an ability to help and to 'finally have a voice'. Placing these themes in the context of their wider life circumstances, participants conveyed an overarching sense that they have limited opportunity elsewhere to have these needs

met. In essence, mothers participated on the perception that this would help their current and future circumstances but also to help others.

Similar to previous research, our results show it is possible for vulnerable groups to participate in research at challenging times and to discuss sensitive topics. Mothers wanted to help and could make decisions about potential benefits to themselves and others if they participate. Our results add support to the concept that altruism and social change are powerful motivators for participation (24, 27); in addition to personal benefits (28, 29) including being able to access treatment or improve quality of life (30).

Previous research has highlighted that motivations vary between and within groups. For example, financial rewards are motivating but not the most common reason for participating (30, 31) and can be more likely to motivate certain groups such as younger participants or those with financial pressures (30). Our results expand on this by showing that the passage of time has an impact on motivation. While there were common motivations across both groups, only mothers currently undergoing assessment were motivated by a perception that co-operation may help with reunification with their children. On the other hand, mothers who had completed their assessments and had time to reflect on the process were more likely to be motivated by the thought of helping their future selves and using their voice for advocacy for other mothers and to shape/influence services.

The data comes from two different studies, and we believe that combining and synthesising specific elements of the original datasets was justified and strengthened the analysis and conclusions. By having each stage of the analysis conducted by a different author and then reviewed by an expert by experience, we hope to have reduced any possible bias. However, despite combining data from two different studies, the participants were all recruited from the same area in Scotland, increasing the likelihood of homogenous experiences and responses may have differed if the mothers were recruited from other areas. As this study used secondary data from two different studies, there are limitations with this approach as the studies had separate aims. The data about participation was taken from the wider interviews and not all questions were related to this area. All the mothers discussed their motivations and reasons for participation in their interviews, some without prompting, highlighting this as an important issue for them. However, we may have obtained more detailed responses if asking more directly about participation or if the interviews focused more in this area. As this study only interviewed those who participated in research, we lack the views of those who chose not to participate. Similarly, while we focused on why the mothers participated, it would be beneficial to explore barriers to participation and strategies to increase participation as this information could shape future research with this group.

Final reflections by expert by experience

SG—"Reflecting on this paper reminds me of the many times where I, and lots of women I have worked with, have felt unheard and just wanted someone to listen to how our lives could be made better had we been asked what we needed as there can be a real lack of understanding. As I read over this paper, I remember someone asking me research questions even though I was seen as vulnerable, and it changed my life for the better in so many ways. It's the reason I believe that research is hugely beneficial and greatly needed so that a way can be found to make the lives of women in addiction a better one, which will then in turn give children a better chance at life too. I think this paper shows that."

Conclusion

This study has shown that despite being 'doubly vulnerable' these mothers wanted to participate in research for their own benefit and the benefit of others. However, research needs to remain mindful of issues about consent and vulnerability and designing inclusion, exclusion and referral pathways appropriately, and with the right processes and safeguarding in place (14), as we have a responsibility to conduct research that is relevant to all members of the population. When a population is 'doubly vulnerable', it is even more crucial that this research is done. It is only the 'doubly vulnerable' who can answer certain research questions (13); otherwise, appropriate interventions cannot be developed to improve treatment options and services and to reduce drug-related deaths and the impact that addiction has on women and their children. We need to listen to these voices.

Data availability statement

The datasets presented in this article are not readily available as ethical approval and participant consent was only provided for quotes from the datasets and was not proivde to share the full datasets. Requests to access the datasets should be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by West of Scotland NHS REC. The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individuals for the publication of any potentially identifiable images or data included in this article.

Author contributions

LR, KC, and FT contributed to the conception, design, and data analysis. LR and KC wrote the first draft of the manuscript. SG wrote a section of the paper and provided reflections as an expert by experience. All authors contributed to the article and approved the submitted version.

Funding

Study 1: this work was funded by the National Society for the Prevention of Cruelty to Children (NSPCC) (grant numbers 20130913 and IID/1/010449942); the Chief Scientist Office (grant number CZH4629); and the National Institute of Health Research (grant number 12/211/54). Study 2: this work was funded by Alcohol and Drug Recovery Services, NHS Greater Glasgow & Clyde.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2023.1204882/full#supplementary-material

References

1. Covington SS. Women and addiction: a trauma-informed approach. *J Psychoactive Drugs*. (2008) 40:377–85. doi: 10.1080/02791072.2008.10400665

2. Tuchman E. Women and addiction: the importance of gender issues in substance abuse research. *J Addict Dis*. (2010) 29:127–38. doi: 10.1080/10550881003684582

3. Schamp J, Simonis S, Roets G, Van Havere T, Gremeaux L, Vanderplasschen W. Women's views on barriers and facilitators for seeking alcohol and drug treatment in Belgium. *Nordisk Alkohol Nark*. (2021) 38:175–89. doi: 10.1177/1455072520964612

4. Andersson C, Wincup E, Best D, Irving J. Gender and recovery pathways in the UK. *Drugs*. (2021) 28:454–64. doi: 10.1080/09687637.2020.1852180

5. Sweeney K. Drug-related deaths in Scotland: looking beyond the numbers. *InnovAiT*. (2020) 13:561–3. doi: 10.1177/1755738020924071

6. Tweed EJ, Miller RG, Schofield J, Barnsdale L, Matheson C. Why are drug-related deaths among women increasing in Scotland? A mixed-methods analysis of possible explanations. *Drugs*. (2022) 29:62–75. doi: 10.1080/09687637.2020.1856786

7. Humphreys K, Weisner C. Use of exclusion criteria in selecting research subjects and its effect on the generalizability of alcohol treatment outcome studies. *Am J Psychiatry*. (2000) 157:588–94. doi: 10.1176/appi.ajp.157.4.588

8. Goodman D. Improving access to maternity care for women with opioid use disorders: colocation of midwifery services at an addiction treatment program. *J Midwifery Womens Health*. (2015) 60:706–12. doi: 10.1111/jmwh.12340

9. Bakos-Block C, Nash AJ, Cohen AS, Champagne-Langabeer T. Experiences of parents with opioid use disorder during their attempts to seek treatment: a qualitative analysis. *Int J Environ Res Public Health*. (2022) 19:16660. doi: 10.3390/ijerph192416660

10. Canfield M, Norton S, Downs J, Gilchrist G. Parental status and characteristics of women in substance use treatment services: analysis of electronic patient records. *J Subst Abus Treat*. (2021) 127:108365. doi: 10.1016/j.jsat.2021.108365

11. Russell L, Gajwani R, Turner F, Gender MH. Addiction, and removal of children into care. *Front Psychiatry*. (2022) 13:887660. doi: 10.3389/fpsyt.2022.887660

12. Morgan HCM, Nolte L, Rishworth B, Stevens C. 'My children are my world': raising the voices of birth mothers with substantial experience of counselling following the loss of their children to adoption or foster care. *Adopt Foster*. (2019) 43:137–54. doi: 10.1177/0308575919848906

13. Moore LW, Miller M. Initiating research with doubly vulnerable populations. *J Adv Nurs*. (1999) 30:1034–40. doi: 10.1046/j.1365-2648.1999.01205.x

14. Clark L. Ethics of working with vulnerable populations in *The international encyclopedia of communication research methods*. Wiley (2017).

15. Finnegan M, O'Donoghue B. Rethinking vulnerable groups in clinical research. *Ir J Psychol Med*. (2019) 36:63–71. doi: 10.1017/ipm.2017.73

16. Rogers B. Ethics and research. *AAOHN J*. (1990) 38:581–5. doi: 10.1177/216507999003801205

17. Alexander S, Pillay R, Smith B. A systematic review of the experiences of vulnerable people participating in research on sensitive topics. *Int J Nurs Stud*. (2018) 88:85–96. doi: 10.1016/j.ijnurstu.2018.08.013

18. Sutton LB, Erlen JA, Glad JM, Siminoff LA. Recruiting vulnerable populations for research: revisiting the ethical issues. *J Prof Nurs*. (2003) 19:106–12. doi: 10.1053/jpnu.2003.16

19. Crawford K, Fitzpatick B, McMahon L, Forde M, Miller S, McConnachie A, et al. The Best Services Trial (BeST?): a cluster randomised controlled trial comparing the clinical and cost-effectiveness of New Orleans Intervention Model with services as usual (SAU) for infants and young children entering care. *Trials*. (2022) 23:122. doi: 10.1186/s13063-022-06007-3

20. Haynes E, Green J, Garside R, Kelly MP, Guell C. Gender and active travel: a qualitative data synthesis informed by machine learning. *Int J Behav Nutr Phys Act*. (2019) 16:135–11. doi: 10.1186/s12966-019-0904-4

21. Braun V, Clarke V. *Thematic analysis: a practical guide*. London: SAGE (2022).

22. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. (2006) 3:77–101. doi: 10.1191/1478088706qp063oa

23. Braun V, Clarke V. Is thematic analysis used well in health psychology? A critical review of published research, with recommendations for quality practice and reporting. *Health Psychol Rev*. (2023):1–24. doi: 10.1080/17437199.2022.2161594

24. Panfil VR. "Everybody needs their story to be heard": motivations to participate in research on LGBTQ criminal offending. *Deviant Behav*. (2022) 43:647–65. doi: 10.1080/01639625.2021.1902756

25. Clark T. On 'being researched': why do people engage with qualitative research? *Qual Res*. (2010) 10:399–419. doi: 10.1177/1468794110366796

26. Soule MC, Beale EE, Suarez L, Beach SR, Mastromauro CA, Celano CM, et al. Understanding motivations to participate in an observational research study: why do patients enroll? *Soc Work Health Care*. (2016) 55:231–46. doi: 10.1080/00981389.2015.1114064

27. Varallo SM, Ray EB, Ellis BH. Speaking of incest: the research interview as social justice. *J Appl Commun Res*. (1998) 26:254–71. doi: 10.1080/00909889809365504

28. Fiordelli M, Fadda M, Amati R, Albanese E. Older adults' motivations to participate or not in epidemiological research. Qualitative inquiry on a study into dementia in Switzerland. *PLoS One*. (2021) 16:e0247141. doi: 10.1371/journal.pone.0247141

29. Carr DC, Tian S, He Z, Chakraborty S, Dieciuc M, Gray N, et al. Motivation to engage in aging research: are there typologies and predictors? *Gerontologist*. (2022) 62:1466–76. doi: 10.1093/geront/gnac035

30. Wahlstrom-Edwards L, Hess A-M. The patient perspective on clinical trials: survey uncovers deeper learnings of patient perceptions of clinical research and the motivations to participate. *Applied Clinical Trials* (2019). 28:22.

31. Kassimu KR, Milando FA, Omolo JJ, Nyaulingo G, Mbarak H, Mohamed L, et al. Motivations and barriers for healthy participants to participate in herbal remedy clinical trial in Tanzania: a qualitative study based on the theory of planned behaviour. *PLoS One*. (2022) 17:e0271828. doi: 10.1371/journal.pone.0271828

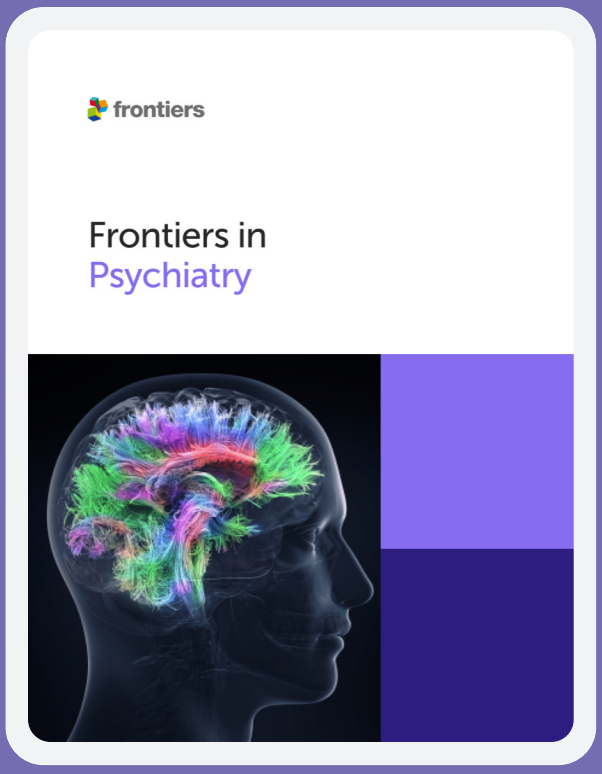
Frontiers in Psychiatry

Explores and communicates innovation in the field of psychiatry to improve patient outcomes

The third most-cited journal in its field, using translational approaches to improve therapeutic options for mental illness, communicate progress to clinicians and researchers, and consequently to improve patient treatment outcomes.

Discover the latest Research Topics

See more →



Frontiers

Avenue du Tribunal-Fédéral 34
1005 Lausanne, Switzerland
frontiersin.org

Contact us

+41 (0)21 510 17 00
frontiersin.org/about/contact