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# Self-understanding and other-understanding in personality pathology

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# Self-understanding and other-understanding in personality pathology

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# Editorial: Self-understanding and other-understanding in personality pathology

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Editorial on the Research Topic
Self-understanding and other-understanding in personality pathology

Personality disorders (PD) are serious mental illnesses characterized by rigid patterns of dysfunctional thinking, feeling, and behaving within several life domains (1). PD research and classification have begun shifting away from categorical approaches toward more dimensional conceptualizations (e.g., the alternative model presented in DSM-5 Section III and ICD-11). Such models focus on quantifying the *degree* of personality pathology across key dimensions (1, 2). Within the alternate model, dysfunction in self-understanding (i.e., identity, self-direction) and other-understanding (i.e., empathy, intimacy) are presented as central building blocks to PD pathology. Persons are evaluated on a continuum from no personality dysfunction to severe dysfunction in these areas (i.e., in need of treatment; 3). Given the centrality of self- and other understanding in novel models of PD, we devoted this Research Topic to expanding our understanding of *why*, *how*, and *when* self-understanding and other-understanding are critical to PD emergence and maintenance.

Regarding *why*, we sought to include empirical and conceptual papers examining the incremental validity of self-understanding and other-understanding in explaining personality pathology. Cervantes et al., highlighted how self-understanding and other-understanding in PD have seldomly been internally evaluated. The authors found an association between intimacy and borderline PD features mediated by identity functioning among adolescents highlighting self-understanding as a likely driver in PD. Somewhat counterintuitively, extant research shows that individuals with PD perform well in other-understanding tasks despite reporting severe interpersonal difficulties. Indeed, Grealy et al. found that individuals with more borderline PD features performed better than individuals with fewer PD features when identifying negative valence stimuli. Finally, we also include papers that emphasize the importance of self-other understanding as treatment process and/or outcome. Two studies used a qualitative approach to explore patient and therapist attitudes about a short-term mentalization-based therapy (MBT). MBT is an evidence-based treatment focused on fostering self-other understanding (or mentalizing) as a means of recovery (4). Central themes emerged indicating both benefits and shortfalls with short-

term treatment. Relatedly, Marconi et al. showed promising results of a Metacognitive Interpersonal Therapy-informed treatment (5) in an outpatient sample. Pol et al. examined changes in narrative identity among individuals with PD and found increased agency pre- to post-treatment (i.e., Dialectical Behavioral Therapy, DBT; 6 & Schema-Focused Therapy; 7), indicating a strengthened sense of authorship and authority in one's life story as crucial for recovery (see also 8). Supporting these findings, Timberlake and Fesel presented a case study of a patient with avoidant PD before, immediately after, and six months following short-term psychodynamic psychotherapy (STPP: 9) termination. Changes in narrative identity were assessed based on therapy transcripts and life narrative interviews. The authors found increased agency and coherence following psychotherapy. Communion fulfillment decreased during therapy but then rose post-treatment, indicating that interpersonal difficulties may need attention before PD amelioration. Lastly, through qualitative analyses, Tobiassen et al. found persons with PD crafted narratives about therapeutic change coinciding with the specific treatment they had received. That is, patients receiving DBT (6) highlighted learning tools and techniques, whereas patients receiving MBT (4) emphasized exploration to create procedural learning.

In terms of *how*, we sought articles that would articulate innovative methods for assessing self-other understanding in the context of personality pathology (e.g., state-of-the-art designs, newly developed measures). Juul highlighted several methodological limitations related to the quality of randomized clinical trials targeting PD and offered several recommendations for future research. Howard presented a conceptual paper on the importance of bridging the gap between typical and pathological personality development. He argued that PD may be organized by deficits in *self as identity* and *self as socially interdependent*. This Research Topic also gives voice to novel aspects of self-other understanding in a PD context. Lind emphasized the importance of narrative identity, or the internal and dynamic story of a person's past, present, and presumed future (10). Narrative identity is a temporal understanding of the self and is largely overlooked in PD research - particularly the maladaptive narrative ecology in which the person coexists. Dr Lind emphasized the importance of taking the narrative ecology into account when studying the person with PD.

In terms of *when*, it has long been acknowledged that PD diagnoses do not emerge without developmental precursors. However, the appropriateness of diagnosis among adolescence has been questioned historically, given the wax and wane of PD symptoms and difficulties in identifying *which* adolescents will continue on a PD trajectory into adulthood (11, 12). Evidence indicates PD can be reliably identified in early adolescence (13, 14) and instruments show comparable reliability to those used with adults (15). In a dimensional model, there is no fixed age limit for diagnosis. Instead, a lifespan approach applies such that symptoms are interpreted in the individual's developmental context (see also 16). A dimensional approach to diagnosis creates opportunity for researchers and clinicians to re-focus on PD among adolescence. Yet, we have little knowledge regarding valid predictors or the underlying causes of PD using "real world data" outside a clinical context. Bogaerts et al. examined developmental trajectories related to identity among a large sample of Finish adolescents and how these related to borderline PD and other personality characteristics. They showed that maladaptive identity trajectories were associated with PD and may signify a risk-factor for later disorder onset (but also a window of prevention).

The Research Topic was devoted to cementing the crucial role of self-understanding and other-understanding in PD. After PD onset, self-other understanding can be used as a therapeutic tool generating change in PD and as an important therapeutic outcome reflecting such change. In tandem, other papers illustrated how spotting maladaptive developmental trajectories in self-other understanding early in development can help prevent PD from "growing up". We would like to thank all authors for their valuable contributions to the special issue.

## Author contributions

ML: Writing – original draft. EF: Writing – review & editing. EK: Writing – review & editing.

## 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.

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# "Self" and "other": A conceptual bridge linking normal with pathological personality

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The goal of this paper is to try and close the gap between the ways in which pathological and normal personality, including their development, are conceptualized. To this end, attention is drawn to parallels that exist between the ways self-function is conceptualized in contemporary personality psychology and in recent iterations of the major psychiatric nosologies, particularly ICD-11. Conceptualizations in both normal and abnormal personality see a fundamental dichotomy between *self as identity* and *self as socially interdependent* (vs autonomous). Evidence is reviewed supporting a basic dichotomy between two categories of personality pathology that can be subsumed under the labels "Acting Out" and "Anxious-Inhibited." It is suggested that fundamental to the personality pathology subsumed under "Acting Out" is a deficient interdependent self, while a defective self-identity is proposed to underlie the personality pathology subsumed under "Anxious-Inhibited."

KEYWORDS

**self, personality, psychopathology, narrative identity, two polarities model, motivation**

## Introduction

In this paper an attempt is made to draw together thinking about the self seen in contemporary personality theory and in recent iterations of the major psychiatric nosologies. We first outline contemporary theories of normal personality and its development that have emphasized different aspects of self, in particular a duality of self: self as *identity* and self as *interpersonal*. We then briefly review recent advances in the conceptualization of abnormal personality ("personality disorder"). We show that a disordered self represents a central focus of current attempts to define personality pathology. In the following section of the paper we propose a distinction drawn by Blackburn and colleagues (1) between two empirically derived types or categories of personality pathology, "Acting Out" and "Anxious/Inhibited." Under these two categories can be subsumed most if not

all the traditional PD categories listed in DSM-5. It is argued that "Acting Out" and "Anxious/Inhibited" can be interpreted as reflecting disturbances in the two main types of self identified in normal personality: interpersonal and identity, respectively. The goal of this paper is to close the gap that separates the ways in which personality pathology and normal personality are conceptualized. It is argued that self as identity (self as autobiographical narrator) and self as socially interdependent can be seen as themes that are common to both abnormal and normal personality.

## Self and relatedness: Two superordinate dimensions of normal personality

Contemporary theories of personality have delineated different aspects of self. For example, in their two-polarities model of personality, Fan et al. (2) argue for two major structural elements of personality, self (identity), and relatedness. Self and relatedness are the carriers that achieve the dual developmental functions of independence and interdependence. They are mirrored in two fundamental developmental dimensions: *interpersonal relatedness*—the *development of increasingly mature, intimate, mutually satisfying, and reciprocal interpersonal relationships*—and *self-definition—the development of an increasingly differentiated, integrated, realistic, and essentially positive sense of self or identity* [(2), p. 3]. Personality is said by the authors of this model to have two basic functions in relation to the internal and external environments. The first is *to maintain independence*, achieve ego functional autonomy, and then construct self-identity. This independence or autonomy helps a person meet their needs for achievement and power. The second function is *to connect a person with their social environment* by assuming social roles such as father, brother, friend, colleague, or leader and to then *meet their needs for affiliation and intimacy*.

Other authors have drawn a similar distinction between an independent or autonomous self and an interdependent self. Baumeister (3), for example, asserts that an interdependent self is firmly embedded in a network of social relationships complete with obligations and accomodations. In contrast, the independent self is an autonomous self-contained agent operating on its own, making choices and pursuing self-selected goals complete with an inner set of values and preferences. Both Fan et al. and Baumeister emphasize the relative salience of self and relatedness in Western and Eastern cultures, respectively. Fan et al. (2) comment: *Western cultures emphasize the inherent separateness of distinct people, who must be independent from others and realize and express their unique attributes. . . . . Eastern cultures, which can be represented by China, emphasize the fundamental connectedness between human beings* (p. 7).

Fan et al. draw a further distinction between *intra*personal and *inter*personal relatedness. The former reflects *how individuals think about their social world*—their social cognition; the latter defines how a person relates to the social world through behavior or performance. The distinction here is between an individual's internal thoughts and feelings about their social world, in contrast to how they manifest to others in their interpersonal behavior.

## Self in DSM-5 and ICD-11

Recent iterations of the Diagnostic and Statistical Manual (DSM) and the International Classification of Diseases (ICD) have both emphasized self and other deficits as core aspects of personality dysfunction. Criterion A of the alternative (hybrid) model outlined in section 3 of DSM-5, requires for a PD diagnosis the presence of a moderate or greater impairment in personality functioning, defined by the degree to which there is an intact sense of self—a clear, coherent identity, and effective self-directedness—and interpersonal functioning—reflecting a good capacity for empathy and for mature, mutually rewarding intimacy with others (4). Likewise, ICD-11 defines four features of personality disorder that define its severity along a dimension ranging from mild to severe (see **Table 1**). Important to note is the emphasis that ICD-11 gives to self-dysfunction (criterion 1) and interpersonal dysfunction (criterion 2). Important too in criterion 1 is an implied motivational deficit: an inability to plan, choose and implement appropriate goals. We note that both ICD-11 and the DSM-5 alternative model, but particularly the former, emphasize the dimensionality of PD in terms of its severity as manifested in the degree of self and other dysfunction. Discussing the merits of the ICD-11 PD model, Clark et al. (5) suggest it represents a significant change in the conceptualization of personality pathology in two major ways: first, by changing from a set of discrete categories to a fully dimensional perspective; and second, by causing us to think of personality pathology as having the following two components:

1. impairment in personality *functioning*—one might say in one's personhood itself —that is, a general failure to mature adaptively and to develop the capacity to live successfully in one's world.
2. the more specific ways in which personality impairment is manifest, that is, an individual's basic maladaptive-range personality traits.

One should note the close similarity between this description of personality functioning, in particular "a general failure to mature adaptively," and the definition of interpersonal relatedness in Fan et al.'s two polarities model of personality: the *development of increasingly mature, intimate, mutually satisfying, and reciprocal interpersonal relationships.*

## Relatedness and identity: Two superordinate dimensions of abnormal personality

As a result of detailed analysis of PD symptoms in mentally disordered offenders, Blackburn et al. (1) were able to identify two high-order factors, Acting Out and Anxious-Inhibited. PD was assessed using the International Personality Disorder Examination (IPDE). Symptoms contributing significantly to each factor, together with their loadings, can be seen in Table 1 in Howard et al. (6). "Acting Out" combines features of antisocial PD (including conduct disorder), narcissistic PD (particularly grandiose), and histrionic PD together with externalizing symptoms of borderline PD (anger and impulsivity). Anxious-Inhibited combines elements of avoidant, borderline (internalizing symptoms) and dependent PDs together with neurotic (vulnerable) forms of narcissism.

The division between PDs subsumed under the "Acting Out" vs. "Anxious-Inhibited" dichotomy is supported by an analysis of PDs carried out within the framework of the circumplex model of personality metatraits [CPM: (7)], a circumplex constituted by two orthogonal dimensions: Alpha/Stability and Beta/Plasticity (see **Figure 1**). CPM integrates the Big Five of the Five Factor Model of personality and the HEXACO model, allowing the integration of models of temperament, emotion, motivation, values, wellbeing, and mental health problems, including personality disorders, into a single framework. Results of a meta-analysis carried out by Zawadzki (8) showed that all PDs subsumable under the "Acting Out" umbrella—histrionic, antisocial, narcissistic, and borderline—clustered together within the lower right quadrant of the circumplex shown in **Figure 1** (beta plus, delta minus, and alpha minus). In contrast, all the PDs that would be subsumed under the "Anxious-Inhibited" umbrella, namely schizoid, avoidant, dependent, schizotypal, and paranoid, fell within the lower-left quadrant shown in **Figure 1**, defined by beta minus, gamma minus, alpha minus. Common to this lower-left quadrant is high Big Five Neuroticism (B5N+ in **Figure 1**) and (in general) low Big Five Extraversion (B5E− in **Figure 1**).

Several points are worthy of note here. First, borderline PD is situated at the interface between the two quadrants, consistent with it straddling the divide between "Acting Out" and "Anxious-Inhibited." Second, alpha minus, which the authors identify with *social antagonism*, is common to both sets of personality disorders, consistent with high hostility being a core feature of both "Acting Out" and "Anxious-Inhibited." Social antagonism is said by these authors to capture externalizing, e.g., anger, aggression, and internalizing, e.g., spitefulness, vindictiveness, or envy problems, together with antisocial tendencies and disregard for social norms and other people. Third, Delta minus is identified with sensation seeking and low impulse control, while gamma minus is associated with low self-motivation, "a competence that is the basis for the capacity to strengthen motives related to the attainment of broadly defined goals and intentions, for example, values, personal standards, or commitments" (9). This lack of self-motivation echoes the low self-direction component of the self-dysfunction domain in ICD-11. Importantly, this distinction implies distinct self-regulation deficits associated with "Acting Out" and "Anxious-Inhibited." In the case, of "Acting Out," the deficit consists in a lack of impulse control associated with risk-taking, reward/sensation-seeking, and what Clark et al. (5) refer to as "reckless impulsivity." In the case of "Anxious-Inhibited," the self-regulation deficit, consisting in a lack of self-direction, is most likely linked to emptiness/anhedonia and associated amotivation (10). Last, we should note that the "Anxious-Inhibited" type of personality pathology is characterized, as its name implies, by social inhibition. The key location for

TABLE 1 Aspects of personality functioning in ICD-11 that contribute to severity determination in Personality Disorder (25).

**(1) Degree and pervasiveness of disturbances in functioning of aspects of the self**
- Stability and coherence of one's sense of identity (e.g., extent to which identity or sense of self is variable and inconsistent or overly rigid and fixed).
- Ability to maintain an overall positive and stable sense of self-worth.
- Accuracy of one's view of one's characteristics, strengths, limitations.
- Capacity for self-direction (ability to plan, choose, and implement appropriate goals).

**(2) Degree and pervasiveness of interpersonal dysfunction across various contexts and relationships (e.g., romantic relationships, school/work, parent-child, family, friendships, peer contexts).**
- Interest in engaging in relationships with others.
- Ability to understand and appreciate others' perspectives.
- Ability to develop and maintain close and mutually satisfying relationships.
- Ability to manage conflict in relationships.

**(3) Pervasiveness, severity, and chronicity of emotional, cognitive, and behavioral manifestations of the personality dysfunction**
- Tendency to be emotionally over- or under-reactive, and having difficulty recognizing unwanted emotions (e.g., does not acknowledge experiencing anger or sadness)
- Distortions in the accuracy of situational and interpersonal appraisals under stress (e.g., dissociative states, psychotic-like beliefs or perceptions, and paranoid reactions).
- Behavioral responses to intense emotions and stressful circumstances (e.g., propensity to self-harm or violence).

**(4) The extent to which the dysfunctions in the above areas are associated with distress or impairment in personal, family, social, educational, occupational or other important areas of functioning.**

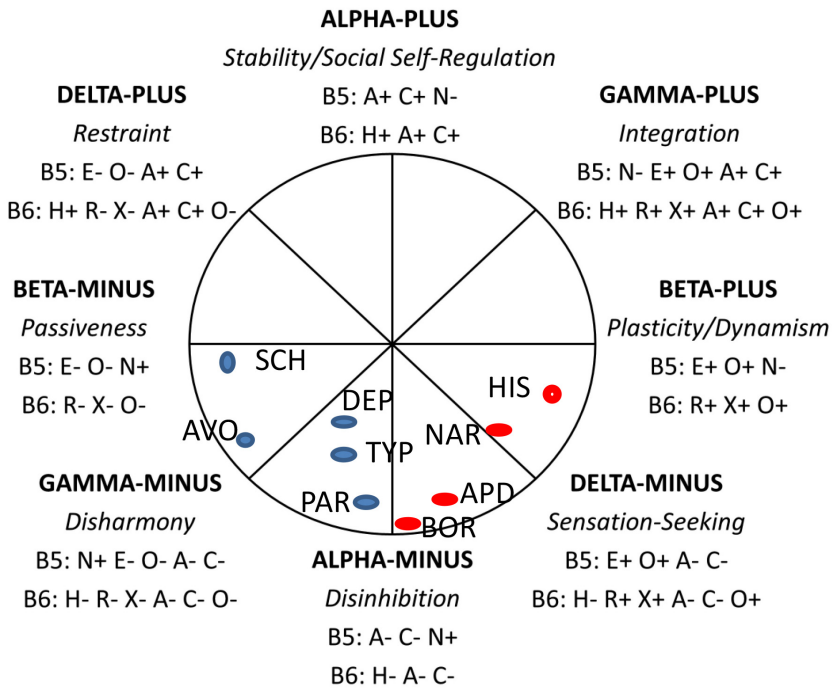


FIGURE 1
The circumplex of personality metatraits. B5, Big Five traits: N, Neuroticism/Emotional Stability; E, Extraversion; O, Openness to Experience/Intellect; A, Agreeableness; C, Conscientiousness. B6, Big Six traits: H, Honesty-Humility/Propriety; R, Resiliency/Emotionality; X, Extraversion; A, Agreeableness; C, Conscientiousness; O, Originality/Openness to Experience. +, positive pole of the trait; –, negative pole of the trait. The approximate positions of PDs, as reported by Zawadzki (8), are indicated by blue and red circles: SCH, Schizoid PD; AVO, Avoidant PD; DEP, Dependent PD; TYP, Schizotypal PD; PAR, Paranoid PD; BOR, Borderline PD; APD, Antisocial PD; NAR, Narcissistic PD; HIS, Histrionic PD. The figure is based on Strus and Cieciuch (26) and reprinted with permission.

social inhibition within the CPM (see **Figure 1**) is the pole Beta Minus/Passiveness which encompasses submissiveness and dependency in interpersonal relations, but also self-consciousness which seems to be crucial for controlling and inhibiting behavior in social situations (11). These authors define social inhibition as a psychosocial disposition that has five components: (i) social interactions that are related to evaluation and/or are unfamiliar (situational context); (ii) contingent and generally lowered self-esteem, which is dependent on social reinforcements. Consequently, it manifests in (iii) a preoccupation with being evaluated by others and monitoring one's own behavior; (iv) feeling uncertainty and tension, and (v) avoiding social exposure, attention, and evaluation through limiting goal-directed activity or taking self-protective behavior (behavioral component).

At the core of both "Acting Out" and "Anxious-Inhibited" is high hostility/antagonism, manifested, in the case of "Acting Out," by a hostile/dominant interpersonal style, in the case of "Anxious Inhibited," by a hostile/submissive interpersonal style (1). At the core of "Acting Out" is an interpersonal deficit characterized by an unwillingness to interact with others in an empathic way ["prosocial apathy": (12)]. People who score high on "Acting Out" are motivated by interpersonal malevolence, e.g., a desire to control others (desire for power) or to hurt, harm or exploit them. They are motivated to avoid empathy by downregulating feelings of concern for others (13). In terms of the above-mentioned distinction between autonomous and interdependent selves, autonomy predominates over interdependence, helping these individuals to meet their malevolent goals (power over, and exploitation of, others), at the expense of being disconnected from their social environment.

## Narrative identity

At the core of "Anxious-Inhibited" are self deficits that include, in particular, a disturbed narrative identity. This refers to the autobiographical story that we construct about ourselves ["self as autobiographical author": (14)], linking together in a coherent fashion our past, present, and future. Narrative identity is often the route by which subjective self-continuity is established and maintained (15). A review of recent literature on narrative identity in PD acknowledges that current knowledge about narrative identity and PD is based primarily on community samples of predominantly females with BPD (16). With this caveat, the authors state that,

taken together, narrative identity research paints a compelling picture of the *subjective sense of self in (B)PD as fragmented, defective, non-agentic, confused, and emotionally isolated*. Lind (15) particularly emphasizes the presence in borderline PD of deficient autobiographical reasoning, a reflective process in which the story is organized and evaluated to create a temporally, causally, and thematically coherent account of the person's life. Lind suggests that autobiographical reasoning may be particularly disturbed in individuals with severe PD, whose stories may be severely disorganized and culturally detached, with a lack of causal connections, and thematic connections that are either absent or encompass themes of severe thwarted agency and communion.

## Discussion

The goal of this paper is to try and close the gap between the ways in which personality pathology and normal personality (and its development) are conceptualized. To this end we have drawn attention to parallels that exist between self-dysfunction as conceptualized in recent iterations of the major psychiatric nosologies, particularly ICD-11, and conceptualizations of self in contemporary personality psychology. Conceptualizations in both normal and abnormal personality see a fundamental dichotomy between self as identity and self as socially interdependent (vs. autonomous). We have reviewed evidence for a basic dichotomy between two categories of personality pathology that, following Blackburn et al., can be subsumed under the labels "Acting Out" and "Anxious-Inhibited." We suggest that fundamental to the personality pathology subsumed under "Acting Out" is a deficient interdependent self, while a defective self-identity underlies the personality pathology subsumed under "Anxious-Inhibited."

It is important to note that these categories, "Acting Out" and "Anxious-Inhibited," are not viewed as disjunctive (either. . .. or) but rather as conjunctive. That is, one could score high on either, neither, or both. Since scores on "Anxious-Inhibited" and "Acting Out" have been found separately to correlate with PD severity (6), the most severe personality pathology would be expected in individuals who score high on both dimensions, for example those in whom features of both antisocial PD and borderline PD are combined (17).

We noted above the presence of maladaptive-range personality traits in ICD-11. These comprise the five trait domains of negative affectivity, disinhibition, dissociality, anankastia, and detachment. Here we should note three aspects of personality traits that tend to be overlooked. The first is that they require a particular type of situation to trigger their expression in overt behavior. This has been acknowledged by scholars of prosocial behavior, who have advocated an affordance-based framework that considers situational features as providing opportunities for the expression of certain aspects of personality in behavior (18). Despite the suggestion of Hepp and Niedtfeld (19) that research in PDs might benefit from adopting an affordance-based framework, the importance of situational factors has been relatively neglected by PD researchers. One exception is a recent study that looked at the situations encountered by individuals (university students) in relation to DSM-5 alternative model personality traits (20). Results showed substantive relations between personality pathology and situational experiences, and these associations were overwhelmingly driven by subjective situational *construal* as opposed to situation contact. While promising, this study requires replication in a clinical or forensic sample. In short, unique situational experiences appear to be differentially driven by different aspects of personality pathology.

The second important, and often overlooked, aspect of personality traits is their link to motivation and goal-directed behavior. Within mainstream personality psychology there is an increasing integration of motivation and personality (21). Some authors acknowledge that traits are inseparable from goals. McCabe and Fleeson (22), for example, review findings supporting an explanation of traits in terms of their utility: they permit the individual to focus on the pursuit and achievement of a certain set of goals. An example might be high antagonism, where possessing the trait arguably allows the individual to pursue goals of hedonic self-gratification, even (or especially) when this is at the expense of other people. A lack of fear (or high boldness) in combination with antagonism would be particularly conducive to the achievement of self-serving hedonic goals such as excitement or sexual gratification. Although ICD-11 does at least acknowledge lack of goal direction as one aspect of the self-deficit in PD, a similar integration of motivation and personality needs to occur in the field of personality pathology. One way in which this integration might occur is highlighted by Lind (15). This author points out that motivational and affective themes, reflecting what the narrator is striving for and how these experiences are evaluated emotionally, are commonly found in the autobiographical narratives of people with PD, particularly borderline patients. Lind cogently argues that narrative identity is a crucial aspect that remains to be incorporated within dimensional approaches to PD.

Finally, we should mention the objections expressed by some authors to the view that maladaptive traits are central to personality pathology. For Sharp and Vanwoerden (23), for example, coherence and consistency of the personal narrative is what determines healthy or unhealthy personality function—not the presence or absence of maladaptive traits *per se*. Thus underlying maladaptive personality traits is a dysfunctional self. This contention receives support from recent work on empathy by Krol and Bartz (24). These authors showed that a clear, coherent, and stable sense of self is important for empathic responding, particularly when, in its mature form, it is characterized by low empathic distress together with

high empathic concern. One question that remains largely unaddressed is how a synergy evolves developmentally between maladaptive traits and self-dysfunction.

We conclude that "self" and "other" themes have shown a parallel development in theoretical accounts of both normal and abnormal personality. The approach advocated here sees personality pathology as dichotomized into two overarching types, "Anxious-Inhibited" and "Acting Out," characterized by "self" and "other" deficits respectively.

## Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

## 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



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# Borderline personality disorder traits and mentalising ability: The self-other social cognition paradox

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**Objective:** Borderline personality disorder (BPD) is a psychiatric condition characterised by a pervasive pattern of impulsivity, low self-image, and interpersonal conflicts. Previous findings indicate a mixed relationship between BPD and social cognition; little research as investigated whether BPD traits influence performance on specific elements of social cognitive tasks, i.e., positive/negative valence.

**Method:** Community-based typical controls (*n* = 151; 51% female) were recruited through an online survey. Participants completed aspects of the Personality Assessment Inventory pertaining to BPD traits, the Interpersonal Reactivity Index, and measures of both emotion recognition and mentalising.

**Results:** Following group stratification into high/low BPD traits, participants with high BPD traits were observed to perform significantly better when identifying negative valence stimuli. Furthermore, high levels of affect instability was found to significantly influence negative valence recognition.

**Conclusion:** This research highlights previous research which shows a paradox between higher performance on measures of social cognition, with a group of individuals who report significant interpersonal and relational difficulties. This research supports the assessment of social cognitive processes for people with BPD and/or high BPD traits to support clinical formulation of strengths and difficulties.

KEYWORDS

**borderline personality disorder traits, social cognition, mentalising, emotion recognition, empathy**

## Introduction

Borderline personality disorder (BPD) is defined as a psychiatric condition, characterised by a pervasive pattern of marked impulsivity and instability in affects, self-image, and interpersonal relationships (1). BPD as a clinical syndrome affects up to 5.9% of the general population (2); 11% of psychiatric outpatients (3); and 33% of psychiatry inpatients (4), with an increasing incidence (5, 6).

The diagnostic criteria outlined by the DSM-5, requires an individual's particular maladaptive personality traits to be pervasive, persistent, and unlikely to be limited to a particular developmental stage or another mental disorder (1). The DSM-5 also requires clinicians to consider two sets of criteria (A and B), in the assessment of BPD. Criterion A requires judgement of severity of identity problems, self-direction, empathy, and intimacy. Criterion B requires the presence of at least four out of seven pathological personality traits.

Borderline personality disorder traits include emotional lability, anxiousness, separation insecurity, depressivity, impulsivity, risk-taking, and hostility (1, 7). According to some, BPD has three clusters of symptoms which relate to the intra- and inter-personal nature of the disorder and encompass the range of diagnostic criteria of the DSM-5: affect dysregulation, behavioural dysregulation, and significant difficulties relating to others (8). Affect and behavioural dysregulation largely relate to the self, though significantly impact interpersonal relationships and are described as phenotypic traits of BPD in both cross-sectional and longitudinal studies (9, 10).

Clinical and empirical observations have proposed that one's own impaired social cognition is a mechanism underlying the development and maintenance of BPD traits through suboptimal social encounters and engagements with others (11). Fonagy et al. (12) showed that impaired social relatedness and social cognition is linked to BPD traits. Social cognition is broadly defined as the ability to identify, understand, and interpret mental states and recognise emotions (13). Social cognition is a neurocognitive concept that includes comprehending others' intentions, beliefs, feelings, and mental states (affective theory of mind), as well as social interaction, social context, and social decision making (cognitive theory of mind) (14). Empathy generally refers to a affective route for understanding others (15), while theory of mind (ToM) refers to neuropsychological processing of others' mental states or intentions (16). The terms mentalising and ToM are often used interchangeably, with ToM typically recognised as a superordinate category, however it is important to note how these terms differ. Mentalising refers to elaboration of drive-affect experiences as mental phenomena and structures and is critical for comprehending each other and oneself in relation to subjective states and mental processes (17). ToM encompasses the ability of perspective taking to infer others' thoughts, beliefs, and emotions as well as decoding others' complex emotions and mental states by understanding subtle affective perceptual stimuli and contextual information (18, 19).

Social cognitive abilities are required for successful social interactions and enable individuals to develop and maintain both short and long-term relationships with others. According to Goueli et al. (20), impaired social cognition is a psychopathological cornerstone of BPD. Findings relating to mental state attribution are incongruous in the area of BPD. A myriad of studies assessed self-reported perspective taking in BPD patients using the Interpersonal Reliability Index [IRI; (21)], and found reduced performance when compared to people with anorexia nervosa and non-clinical controls (22–24). Emotion recognition tasks have also been used with inconsistent results (25, 26). Some report people with BPD correctly identified emotional facial expressions (25, 27), while others indicated that people with BPD had reduced performance and showed bias toward the perception of anger in pictures of faces displaying blends of two emotions (26). Bora et al. (18), suggest interpersonal problems and difficulties in processing social information in BPD can be best explained by patients' maladaptive meta-social cognitive style and the top-down effects of such abnormalities as opposed to having a primary neuro-social cognitive deficit which may partially explain the variance in results in the literature. Notably, studies have indicated that when facial emotion recognition tasks approximate more complex and naturalistic situations, BPD patients display increased error rates compared to non-clinical controls (28, 29).

Ghiassi et al. (30) investigated mentalising, which was not impaired in BPD patients compared to non-clinical controls. However, other research reports deficits in ToM for people with BPD (23). This may be due to measurement and psychometric error, as the faux-pas task (31) was used by (23), while Ghiassi et al. (30) used the cartoon task (32) and the differences of measurement between social cognition tests is nuanced. Using the Movie for Assessment of Social Cognition [MASC; (33, 34)] BPD patients have been reported to have impaired recognition of emotion, thoughts, and intentions of others (35). The MASC was utilised in a further study on adolescents with BPD traits which found evidence for impaired social cognition in those with high traits compared to low (36). Notwithstanding the above, there is also a body of literature which suggests that people with BPD have a superior ability to infer mental states of others, when compared to typical controls. Such findings contribute to the self-other social cognitive paradox, which suggests that BPD patients have enhanced mentalising abilities, despite a fundamental difficulty with relatedness and interpersonal relationships (37). One such study (38) investigated outcomes on the "Reading the Mind in the Eyes Test" (RMET) in BPD patients compared to healthy controls. Currently, the wider literature is mixed regarding whether the RMET is a measure of emotion recognition, mentalising or a combination of both (39–41). In line with the view of Oakley

et al. (40) who report that "theory of mind is not theory of emotion," we consider emotion recognition tasks as those more "basic emotion" labelling or matching (e.g., happy/sad/angry), with mentalising considered to involve more complex, higher-level cognitive processing (42, 43).

This study reported the BPD group performed significantly better on total RMET score. A later study examining behavioural and neuropsychological responses of BPD patients and healthy controls during performance of the RMET supported these results (37). Results showed BPD patients demonstrated superior mental state discrimination than healthy controls. A significant main group effect was seen, specifically in mental state discrimination between positive and negative eye gazes. Unoka et al. (44) also utilised the RMET to research mentalising in BPD; This study used a sample of 78 BPD patients and 76 matched healthy controls and found poorer on the RMET when patients were compared to controls, though no significant difference was reported for negative items on the task. Petersen et al. (45) also report that people with BPD performed poorer on the RMET test, which was specifically driven by incorrect responses to positive stimuli. Zabihzadeh et al. (46) further investigated outcomes on the RMET and the Faux Pas Test (cognitive theory of mind) which showed that people with BPD had higher scores on mentalising, while the control group was higher on cognitive theory of mind. Savage and Lenzenweger (47) further studied participants with BPD traits comparing scores on RMET performance pre and post social exclusion *via* computerised task that mimics social ostracism. A significant interaction was found between participants with BPD traits and RMET scores, suggesting that once an individual with BPD traits experiences social exclusion, their objectivity decreases, and negative affective valence is ascribed to stimuli previously perceived as neutral. Similar results were observed by Scott et al. (48) who showed that patients with BPD tend to misattribute malevolence to benign social stimuli, including facial expressions, with enhanced accuracy on the RMET in healthy individuals with high BPD traits compared to low. These findings suggest BPD traits may be associated with enhanced ability to detect and interpret mental states and a bias for attributing negative emotions to non-negative stimuli. Notably, researchers have suggested the RMET to be a measure of superficial mentalising as opposed to a comprehensive measure of genuine mentalising ability due to the fact that there is no requirement for participants to reason about behaviour based on their mental state attributions (45). Such methodological flaws in measures of social cognitive abilities may partially account for the heterogenous findings in the area.

Incongruent results have also been reported for empathy, which can be described as an observer's emotional response to another person's emotional state (49). Harari and colleagues found that self-reported affective aspects of empathy were increased in BPD patients. Conversely, New et al. (24), did not find significant group differences when comparing BPD patients and non-clinical controls using the same measure. In further conflicting results, Dziobek et al. (50) found BPD patients had significantly reduced tendencies to feel empathy for others in emotionally distressing situations assessed using the Multifaceted Empathy Test [MET; (51)]. However, while there is no objective guideline as to what level of Cronbach's alpha is required for an instrument to be considered useful, general conventions would characterise the reliability of the MET scale as inadequate (52, 53). Additionally, this study reported decreased values on the Interpersonal Reactivity Index [IRI; (21)], empathic concern scale.

It is clear from the literature that further research is needed into social cognition and both clinical and sub-clinical BPD traits. Previous studies on BPD have focussed narrowly on specific aspects of social cognition and have produced conflicting results (35, 54). The assessment of varied domains of objective and subjective social cognition is required to identify typical patterns of abilities as well as deficits. Research on social cognition has the potential to bolster psychopathology models of BPD that emphasise social cognitive outcomes as a core deficit (55). The current study aims to investigate the relationship between social cognition and BPD traits further, to determine which specific BPD traits predict social cognition outcomes. The objective was to determine if group differences existed on the specific positive, negative, and neutral subscales of the RMET, and whether performance related to other measures of social cognition. This study further aimed to quantify the predictive relationship between BPD traits and mentalising outcomes, in a community sample of controls.

# Materials and methods

## Participants and procedure

This study employed a cross-sectional survey-based design from a community-based sample of typical controls. Data from 151 participants were gathered using Prolific Academic©, an online platform for survey-based data collection. In terms of eligibility criteria, participants were required to be over the age of 18, to give explicit consent for data usage, and to be residents in the Republic of Ireland. Exclusion criteria included having existing neurological or mental health diagnoses which may interfere with test performance; and being non-native English speakers. Participants were screened for exclusion criteria through online survey questions, prior to engaging with the study. Following this, participants provided consent and demographic details and then proceeded to complete the online psychometric and cognitive measures.

On completion of the survey, participants received a gratuity of commensurate with the hourly minimum wage rate in Ireland. A pilot study was conducted with 10 participants, with no changes made following this. Consequently, the study was

continued and the data from these 10 was retained. The average duration of the experiment was approximately 30 min. The mean age of participants was 38.79 (SD = 12.37), ranging from 20 to 76. The sample was comprised of 49.67% males ($N$ = 75) and 50.33% females ($N$ = 76).

This study was approved by the School of Psychology Health Research Ethics Committee at National University of Ireland Galway. All procedures were conducted in accordance with the principles expressed in the Declaration of Helsinki.

## Measures

### Demographics

Participants provided basic demographic information such as age, sex, education, and employment status. Demographics, social cognition and psychopathy outcomes were gathered using the online platform, Prolific Academy©. This platform has been shown to have high data quality, a diverse participant pool, and demonstrates reproducibility of known effects.

### The reading the mind in the eyes task

The Reading the Mind in the Eyes Task [RMET; (39)] is a 36-item assessment where black and white photographs of eye regions are presented, and participants are requested to infer mental states from four choices provided. The RMET can also provide individual scores for Positive, Negative, and Neutral valence (56–59). Examples of Positive valence include Friendly (Q20); Negative valence: Hostile (Q26); Neutral valence: pensive (Q24). The RMET has been found to be reliable and stable over time (60), with a Cronbach's alpha of 0.88 (61). The RMET has further been validated using remote administration *via* survey-based platforms (62), and does not produce ceiling effects (63).

### The Florida Affect Battery

The Florida Affect Battery [FAB; (64)], is a measure of emotion recognition. Five different emotional states are used across the subtests: happiness, sadness, anger, fear, and neutral. Subtests of the FAB included were (1) facial affect discrimination, and (2) facial affect naming. In the facial affect discrimination subtest participants must determine whether two faces depict the same or different emotional expressions. In the facial affect subtest, individual faces are shown as stimuli and participants is asked to name the emotion depicted. Test-retest reliability of the FAB has been examined and ranged from 0.89 to 0.97, with the Cronbach's alpha for the facial scales reported at 0.82 (64).

### The Interpersonal Reactivity Index (IRI)

The Interpersonal Reactivity Index [IRI; (21)] is a 28-item self-report instrument designed to assess empathic tendencies. The IRI consists of four separate 7-item subscales: Perspective Taking (PT; Cronbach's alpha: 0.83), Fantasy (FS; Cronbach's alpha: 0.86), Empathic Concern (EC; Cronbach's alpha: 0.83), and Personal Distress (PD; Cronbach's alpha: 0.78), which are measured using a 5-point Likert scale ranging from "Does not describe me well" to "Describes me very well" (65). PT refers to the tendency to spontaneously adopt the psychological point of view of others. FS describes the likelihood that a person identifies with a fictional character. EC assesses individuals' feelings of concern and compassion for others. Lastly, PD indicates the extent that a person feels uneasiness or worry when exposed to the negative experience of others. The IRI has robust validity and is among the most widely used measures of empathy (66).

### The Personality Assessment Inventory

The Personality Assessment Inventory [PAI; (67, 68)], is a self-administered test of personality and psychopathology. The PAI is a 344-item questionnaire in which there are 22 non-overlapping subscales. For the purpose of this study, Borderline Features (Bor) was measured, which focuses on attributes indicative of a BPD, including unstable and fluctuating interpersonal relations, impulsivity, affective lability and instability, and uncontrolled anger. The Bor scale is a sum of four subscales: Bor-A (Affect Instability); Bor-I (Identity problems); Bor-N (Negative Relationships), and Bor-S (Self-Harm). The respondent is asked to check one of four response options indicating the extent to which the item statement accurately describes them. For each scale responses are standardised with reference to a national census-matched sample of community adults. The standardisation results in a T score, with 50T representing the mean, and the standard deviation being 10T. A score of $\geq$ 70T represents a level of reported symptoms that is rarely seen in the general population and is considered very clinically relevant. For the purpose of this study, people who scored > 70T on a measure of the PAI Borderline subscales, were categorised as high self-report, compared to those who endorsed items < 70T. The PAI was chosen for this study as it has robust content and discriminant validity as well as internal consistency reliability estimates (69, 70), with the Cronbach's alpha of the Bor scale at 0.91 (71).

## Statistical analysis

Demographic characteristics and outcome data are reported as means, standard deviations, and frequencies as relevant. Based on the data obtained, classification for good internal consistency, using Cronbach's alpha, remains at the internationally accepted value > 0.70. The data was analysed using the IBM SPSS v27. Power analysis revealed 150 participants were required to detect a minimum effect size ($r$ = 0.15) with an alpha level of 0.05 with 95% power. Our *a priori* power analyses for group comparisons indicated that a minimum of = 42 would be required per group to detect a

medium effect size (power = 0.8; $f$ = 0.25, $\alpha$ = 0.05, $\lambda$ = 8.0). Descriptive statistics, bivariate correlations, multivariate ANOVA, general linear regression, and hierarchical multiple regression were conducted to analyse the data. As above, PAI Borderline subscales were used to determine if an individual scored high (> 70T) or low (< 70T). The significant predictor variables were regressed onto RMET using hierarchical multiple regression.

# Results

## Correlations

Pearson's product moment correlation coefficient was conducted to investigate the relationship between the BPD traits and social cognitive outcomes, as shown in Table 1. There was a significant relationship between the PAI Borderline total, with the personal distress subscale of the IRI, ($r$ = 0.33, $p < 0.001$). Bor-A was significantly related to the RMET total score, ($r$ = 0.17, $p < 0.001$), more specifically, the percentage correct on the RMET negative valence, ($r = 0.28, p < 0.001$). Bor-A also correlated negatively with IRI perspective taking ($r$ = -0.16, $p < 0.05$) and IRI personal distress ($r$ = 0.37, $p < 0.001$). Borderline Identity Problems (Bor-I) positively correlated with IRI personal distress ($r$ = 0.28, $p < 0.001$). A further significant relationship was found between Bor-N and IRI personal distress ($r$ = 0.25, $p < 0.001$). There were no significant correlations between Bor-S and social cognitive outcomes.

## Analysis of variance

A one-way multivariate analysis of variance (MANOVA) was conducted to investigate performance in the RMET, grouped by high (> 70T; $n$ = 53) or low ($n$ = 98) reported scores. The dependent variables were percentage correct on RMET positive, negative, and neutral valence. Of each of the subscales, the MANOVA found significant differences between groups when stratified by Bor-A [Wilk's $\Lambda$ = 0.95, $F_{(3,147)}$ = 2.88, $p < 0.001$, $\eta^2_P$ = 0.55] only. Subsequently, one-way ANOVAs for each valence subscale were conducted grouped by high/low Bor-A outcomes. Bonferroni correction was applied to control for multiple comparisons with an adjusted alpha level ($\alpha$ = 0.017). A significant difference between groups in the percentage correct on RMET negative valence was observed [$F_{(1,149)}$ = 6.31, $p < 0.017$, $\eta^2_P$ = 0.04]. No significant differences were found between groups on the RMET positive valence [$F_{(1,149)}$ = 0.82, $p$ = 0.368, $\eta^2_P$ = 0.005], or neutral valence [$F_{(1,149)}$ = 0.033, $p$ = 0.856, $\eta^2_P$ = 0.001] after correcting for multiple comparisons. There was also a significant difference in the self-reported personal distress subscale of the interpersonal reactivity index, when stratified by high/low Bor-A [$F_{(1,149)}$ = 19.24, $p < 0.0001$], with means and standard deviations presented above in Table 2.

## Regression

To investigate this further, a series of general linear regressions were conducted to determine the variance in valence recognition. The Bor-A subscale significantly predicted variance in the RMET negative valence [$F_{(1,149)}$ = 12.3, $p < 0.001$, $R^2$ = 0.08, $R^2_{adjusted}$ = 0.07], but not positive or neutral. A hierarchical multiple regression was conducted to examine if scores on each PAI Borderline subscales (Bor-A, Bor-I, Bor-N, and Bor-S) further predict the percentage of correct answers on the RMET negative valence measure, while controlling for age and sex. The predictor variables of age and sex were entered into the first block and the PAI Borderline subscale scores were entered into the second block. The criterion variable was percentage of correct answers on the RMET negative valence measure.

Multicollinearity was not present in the data as observable in Table 1. The variance inflation factor scores were less than 10 (range = 1–1.73) and tolerance scores were greater than 0.1 (range = 0.58–1). The results of the hierarchical multiple regression, as shown in Table 3 below, show that the overall model was significant, accounting for 5.7% of variance in RMET negative valence percentage correct [$F_{(6,144)}$ = 2.50, $p < 0.05$, $R^2$ = 0.09, adjusted $R^2$ = 0.06]. Step one age and sex, did not contribute significantly to the model [$F_{(2,148)}$ = 0.17, $p$ = 0.85, $\Delta R^2$ = 0.02, adjusted $\Delta R^2$ = 0.01]. Step two, Bor-I, Bor-N, Bor-S did not significantly contribute to the model [$F_{(3,145)}$ = 1.05, $p$ = 0.37, $\Delta R^2$ = 0.02, adjusted $\Delta R^2$ = -0.01]. Step three, with the inclusion of Bor-A, significantly contributed to the model, explaining 9.4% of variance in RMET negative valence percentage correct [$F_{(1,144)}$ = 11.3, $p < 0.001$, $\Delta R^2$ = 0.07, adjusted $\Delta R^2$ = 0.05]. Bor-A was the only significant contributor to the variance explained ($\beta$ = 0.34, $p < 0.001$).

# Discussion

This study investigated the relationship between BPD traits and social cognitive outcomes in a non-clinical community-based sample ($n$ = 151). BPD traits were measured using the Borderline scale of the PAI, a clinically validated and reliable measure. Social cognitive abilities were evaluated using three measures, each assessing a different aspect of social cognition: the RMET (mentalising/facial emotion recognition), the IRI (empathy), and the FAB (emotion recognition). It was hypothesised, in line with previous literature, that higher BPD

TABLE 1 Pearson's correlation statistics for BPD trait and social cognition variables.

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. PAI Bord. total | – | | | | | | | | | | | | | | |
| 2. BOR A total | 0.75** | – | | | | | | | | | | | | | |
| 3. BOR I total | 0.82** | 0.54** | – | | | | | | | | | | | | |
| 4. BOR N total | 0.82** | 0.53** | 0.57** | – | | | | | | | | | | | |
| 5. BOR S total | 0.60** | 0.27** | 0.30** | 0.23** | – | | | | | | | | | | |
| 6. IRI total | 0.11 | 0.12 | 0.14 | 0.10 | −0.02 | – | | | | | | | | | |
| 7. FAB affect total | −0.12 | 0.03 | −0.14 | −0.16 | −0.05 | 0.05 | – | | | | | | | | |
| 8. FAB discrimination total | −0.12 | −0.14 | −0.08 | −0.07 | −0.10 | −0.03 | 0.20* | – | | | | | | | |
| 9. RMET total | −0.02 | 0.17* | −0.01 | −0.03 | −0.16 | 0.08 | 0.23** | 0.09 | – | | | | | | |
| 10. RMET valence positive | −0.10 | 0.02 | −0.08 | −0.04 | 0.03 | 0.03 | 0.26** | 0.22** | 0.78** | – | | | | | |
| 11. RMET valence neutral | −0.10 | 0.10 | −0.08 | −0.14 | −0.14 | 0.05 | 0.15 | −0.02 | 0.72** | 0.39** | – | | | | |
| 12. RMET valence negative | 0.14 | 0.28** | 0.13 | 0.07 | −0.03 | 0.10 | 0.08 | −0.05 | 0.71** | 0.22** | 0.35** | – | | | |
| 13. IRI fantasy | 0.06 | 0.10 | 0.09 | 0.02 | −0.03 | 0.71** | 0.15 | −0.10 | 0.13 | 0.09 | 0.09 | 0.11 | – | | |
| 14. IRI empathic concern | −0.01 | −0.01 | 0.02 | −0.02 | −0.03 | 0.73** | −0.01 | 0.05 | 0.13 | 0.10 | 0.10 | 0.09 | 0.36** | – | |
| 15. IRI perspective taking | −0.11 | −0.16* | −0.04 | −0.06 | −0.08 | 0.67** | 0.02 | 0.01 | 0.06 | 0.08 | 0.01 | 0.03 | 0.31** | 0.51** | – |
| 16. IRI personal distress | 0.33** | 0.37** | 0.28** | 0.25** | 0.10 | 0.38** | −0.05 | −0.04 | −0.10 | −0.170* | −0.04 | 0.02 | 0.07 | −0.01 | −0.14 |

**$p < 0.01$ level (two-tailed); *$p < 0.05$; $N = 151$; PAI, Personality Assessment Inventory; BOR, Borderline – A (Affect Instability), I (Identity Problems), N (Negative Relationships), S (Self-harm); FAB, Florida Affect Battery; IRI, Interpersonal Reactivity Index; RMET, Reading the Mind in the Eyes Test.

TABLE 2 Means (M) and Standard Deviations (SD) on outcome measures for the total group, and stratified by Bor-A outcomes.

| Outcome measures | Borderline – Affect Instability | | | | | |
|---|---|---|---|---|---|---|
| | Below 70T (n = 98) | | Above 70T (n = 53) | | Total group (N = 151) | |
| | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Age | 39.76 | 12.64 | 37.02 | 11.76 | 38.79 | 12.36 |
| FAB discrimination | 4.24 | 0.80 | 4.00 | 0.91 | 4.15 | 0.849 |
| FAB affect correct | 17.72 | 1.72 | 17.56 | 2.08 | 17.66 | 1.85 |
| RMET total | 25.83 | 3.79 | 26.33 | 4.52 | 26.01 | 4.05 |
| RMET Positive valence % correct | 75.13 | 12.63 | 73 | 15.89 | 74.38 | 13.83 |
| RMET negative valence % correct | 66.41 | 14.92 | 72.57 | 13.34 | 68.57 | 14.65 |
| RMET neutral valence % correct | 74.05 | 19.61 | 74.66 | 19.37 | 74.27 | 19.66 |
| IRI total | 95.5 | 11.35 | 98.69 | 10.71 | 96.62 | 11.20 |
| IRI fantasy | 23.05 | 4.64 | 24.28 | 4.46 | 23.48 | 4.60 |
| IRI empathic concern | 27.80 | 4.11 | 27.56 | 4.29 | 27.71 | 4.16 |
| IRI perspective taking | 26.00 | 4.69 | 24.84 | 4.63 | 25.60 | 4.69 |
| IRI personal distress | 18.54 | 11.35 | 21.88 | 4.58 | 19.71 | 4.56 |
| Bor-A* | 6.02 | 1.55 | 10.75 | 1.68 | 7.68 | 2.77 |
| Bor-I | 5.40 | 3.28 | 9.11 | 3.76 | 6.70 | 3.87 |
| Bor-N | 5.56 | 3.37 | 9.32 | 3.49 | 6.88 | 3.85 |
| Bor-S | 3.12 | 2.88 | 4.35 | 3.55 | 3.55 | 3.18 |

*The Bor-A variable is the grouping variable for the sub-stratification. BOR; Borderline – A (Affect Instability), I (Identity Problems), N (Negative Relationships), S (Self-harm); FAB, Florida Affect Battery; IRI, Interpersonal Reactivity Index; RMET, Reading the Mind in the Eyes Test. Bold indicated significant between group differences.

TABLE 3 Summary of hierarchical regression model.

| Step | Variable | β | Δ $R^2$ | Adjusted Δ $R^2$ | *F* change |
|---|---|---|---|---|---|
| 1 | Sex | 0.04 | | | |
| | Age | −0.03 | 0.02 | 0.01 | 0.17 |
| 2 | Bor-I | 0.04 | | | 1.05 |
| | Bor-N | −0.11 | | | |
| | Bor-S | −0.10 | | | |
| 3 | Bor-A | 0.34** | 0.07 | 0.05 | 11.3** |

Total $R^2 = 0.09$, adjusted $R^2 = 0.06$; $^{**}p < 001$; BOR; Borderline – A (Affect Instability), I (Identity Problems), N (Negative Relationships), S (Self-harm).

trait scores would significantly relate to social cognitive abilities. A further aim was to investigate what traits effect what social cognitive skills in addition to examining the predictive value of this relationship.

The above results indicate that a statistically significant relationship is present between elevated specific BPD traits (affect instability) and social cognitive outcomes (mentalising). These findings are highly consistent with previous research showing elevated BPD traits and improved aspects of social cognition (38, 44, 46–48, 72). While not significantly different relative to typical controls, the current study findings pertaining to valence recognition support similar findings of Anupama et al. (73), who found facial emotion recognition ability was significantly lower for patients diagnosed with BPD for the eye region associated with positive and neutral valences. The results of the present study are congruous with those reported by Arntz et al. (74), and Fertuck et al. (38), which show improved performance on mentalising tasks for people with BPD. This enhanced ability, or tendency to over attribute extreme mental states to others may be referred to as over-mentalising or hyper-mentalising, as reported by Ortega-Díaz et al. (75) and Sharp et al. (36). Sharp and colleagues and Sharp and Vanwoerden (76); Sharp and Vanwoerden (77) suggest that borderline features do not associate with deficits in mentalising, but rather an altered style of mentalising in the form of hyper-mentalising. The current findings provide support for aspects of hyper-mentalising to be considered as a core feature of BPD.

Numerous studies have examined clinical cohorts with BPD utilising the IRI. Guttman and Laporte (22), found impairments in perspective taking in BPD patients when compared to patients with anorexia nervosa and non-clinical controls. Additionally, Dziobek et al. (50), reported BPD patients to have significantly reduced tendencies to feel empathy for others in distressing situations. While there was no significant difference on these subscales for our non-clinical sample, there was a significant negative association between high affect instability and the IRI perspective taking subscale, despite Bor-A being associated with better performance on mentalising. This self-other paradox may suggest that some people with high borderline traits have intact, or even enhanced ability to infer mental states and intentions of others, though may have an incongruent self-impression of their social cognitive abilities. This may relate to previous experience and learned behaviour following social interactions. These results could support development of interventions to address such a disparity between one's self-impression of and actual abilities. Furthermore, BPD patients can display a bias toward the perception of anger in pictures of faces displaying blends of two basic emotions (26). As BPD and BPD traits are associated with higher levels of adverse experiences, it may also be possible that individuals with high BPD traits have higher exposure to negative valence in a social or environmental context, and as such can identify and recognise it more accurately than typical controls, or those with low BPD traits. This may relate to hypervigilance, whereby individuals with higher BPD traits may have a propensity to analyse the environment for threat in the form of hostile behaviour, i.e., negative valence. This would be an avenue for future research to explore in detail. Importantly, this study showed the need for more detailed social cognitive testing for people presenting to mental health services, as well as people with psychiatric presentations. This may tell us more about social cognition from a theory perspective, as well as inform interventions such as social or cognitive remediation which may be useful from a clinical perspective.

The results of this study are congruent with the literature on BPD that assigns a high degree of importance to affect instability. Previous research has suggested that affect instability is the core pathology in BPD (78). Results highlight that participants' affect instability score accounted for 7% of variance in their percentage correct on negative valence. Furthermore, the overall model was found to predict 5.7% of variance, with the affect instability variable being the sole significant contributor.

Notable strengths of the current study are the broad age range and the gender balance of the sample which contribute to the generalisability of the results. Additionally, the use of a range of measures including the RMET valence subscales contribute to the relevance and novelty of the research. While this study has yielded numerous significant results, these findings are subject to certain limitations. Firstly, the self-report nature of this study must be considered; The use of self-report has limitations such as social desirability bias, misinterpretation of the questions, and the restrictive nature of some scales. A second limitation is the use of a non-clinical cohort to measure BPD traits, over and above clinical symptoms and cognitive outcomes in people with a clinical diagnosis.

Further assessments are required to contextualise the findings of this research and begin to offer more causative reasons for these findings, with larger samples, longitudinally. Firstly, investigating the relationship between BPD traits and

predisposing factors may yield further information as to why there are elevated BPD traits, as well as offer a contextual explanation for the findings in this study. Researchers utilising the scales employed in this study should note the lack of significant results when analysing the *total* scores of the measures, i.e., RMET and IRI, and consider more specific subscales. Analysing the subscale totals provides a more detailed and comprehensive understanding of the relationship being studied and yields significant results where the overall total does not. This is pertinent when investigating a disorder such as BPD as symptomology and presentation can vary greatly between patients. Lastly, in relation to the psychometric measurement of cognitive domains, as noted above, there is ongoing debate within the literature as to whether the RMET is a measure of emotion recognition, theory of mind, or whether it combines features of both (39–41). Based on the pattern of outcomes within this study, there is evidence to suggest that the RMET measures something additional, if not arguably entirely different, to emotion recognition alone. Future research could consider this convergence and divergence further through prospective item-level analyses of the RMET alongside measures of emotion recognition. Future studies may consider utilising additional or alternative measures of social cognition to bolster ecological validity as it has been proposed that the RMET is a measure of superficial mentalising (45). The MASC has been reported to be a more complex and ecologically valid measure which may better identify impairments in social cognition (34).

The data indicates there is a significant relationship between social cognitive function and BPD traits. Different traits were found to correlate higher than others with certain social cognitive skills. Specifically, this study suggested high affect instability predicts recognition of negative valence. Due to the cross-sectional survey-based nature of this study, a causal hypothesis between social cognitive performance and elevated borderline personality disorder traits cannot be examined, however, this may be an avenue for future research.

## 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 School of Psychology, National University of Ireland Galway. The patients/participants provided their written informed consent to participate in this study.

## Author contributions

MKG, GC, and TB analysed the data. All authors contributed to the development of the study, data collection, and manuscript development and review.

## 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



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# Improving the methodological quality of randomized clinical trials assessing psychotherapy for borderline personality disorder: Recommendations for the future

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## Introduction

Borderline personality disorder (BPD) is a debilitating psychiatric disorder affecting 1–6% of the population (1, 2). BPD symptoms include identity diffusion, affective dysregulation, and often high rates of self-harming behavior and suicide-related mortality (3, 4). Today, psychotherapy is the most widely used intervention for treatment of BPD, and the efficacy of different specialized psychotherapies for BPD has already been assessed in many randomized clinical trials (5).

Evidence-based medicine is based on the fundamental principle that high-quality research should guide practice and decision-making in the care of individual patients (6). The systematic review of randomized clinical trials is considered the gold standard when estimating intervention effects (7). However, even at the top of the evidence hierarchy, methodological challenges may still occur in the design, conduct, analysis, interpretation, and publication of trial results. These challenges from individual trials may ultimately skew the results and conclusions drawn from systematic reviews of these trials.

A Cochrane review by Storebø et al. assessing the beneficial and harmful effects of all psychological therapies for BPD was published in 2020 (5). The authors

concluded that dialectical behavioral therapy (DBT) and mentalization-based therapy (MBT) were more effective than treatment as usual on a number of patient-important outcomes (5). However, all results were based on low-quality evidence (5). The authors used the original Cochrane risk of bias tool to assess bias (8), and the Grades of Recommendations, Assessment, Development, and Evaluation (GRADE) guideline to assess the certainty of evidence (9).

Based on these methodological assessments (5) combined with my personal experiences with conducting a randomized clinical trial assessing psychotherapy for BPD (10, 11), I will in the following present some key methodological limitations along with recommendations to improve clinical research, particularly individual, parallel-group, randomized clinical trial methodology, within the field.

## Balancing beneficial and harmful effects

"First do no harm" is an important injunction in all medical interventions (12). It implies that both beneficial *and* harmful effects of any intervention should always be assessed. While beneficial effects (e.g., symptom reduction and quality of life) have been thoroughly assessed in psychotherapy trials for BPD, the harmful effects of psychotherapy for BPD are currently unclear due to lack of data (5).

A universal definition of a harmful effect of psychotherapy currently does not exist, and therefore, the appropriate way of assessing harmful effects of psychotherapy can been discussed (13, 14). Relevant harmful effects for BPD patients could be self-harm, suicidality, and, more broadly, serious adverse events (15). There are many other types of harmful effects that have been reported, for example clinical deterioration or treatment non-response (14). The problem with outcomes such as response, non-response, or deterioration is that they are often based on a dichotomization of a continuous scale. For example, trialists often dichotomize the Hamilton Depression Rating Scale (HDRS) by transforming the overall HDRS score between 0 and 52 into a dichotomous score comparing responders ($\geq$ 50% improvement) to non-responders ($\leq$50% improvement) (16). However, several studies have shown that dichotomization of continuous data can bias results (17, 18). For example, a participant who improves by $\geq$ 50% is defined as a responder, whereas a participant who improves by 49% is defined as a non-responder, and thus the apparent difference becomes inflated (16).

A more objective way of assessing harmful effects is by applying the proportion of participants with one or more serious adverse events as defined by the International Conference on Harmonization of technical requirements—Good Clinical Practice (ICH-GCP) guidelines (19) as an outcome. According to ICH-GCP, a serious adverse event is defined as any adverse event that results in death, is life-threatening, requires hospitalization or prolongation of existing hospitalization, or results in persistent or significant disability or incapacity (19). When assessing serious adverse events with the ICH-GCP definition, two blinded investigators should independently go through patient medical records and record all events according to these criteria. An advantage of this method is that all events should be classified regardless of their etiology, and the investigators thus avoid having to differentiate a disease-specific event (e.g., a suicide or suicide-attempts) from a non-disease-related event (e.g., an accident) (20). When employing the ICH-GCP definition, a potential suicide or suicide-attempt will be included as an event, and can be categorized in a serious adverse events table. If the number of randomized participants is high enough, the non-disease-related serious adverse events will be equal in both groups, and the "true" difference between the assessed interventions on the disease-related events becomes isolated. The inclusion of serious adverse events and other methods to assess harmful effects should be improved in future trials.

## Minimizing systematic errors (bias)

Causal inferences from randomized clinical trials can be undermined by errors in the design, conduct, analyses, and reporting leading to skewed estimates of the true intervention effects (bias) (21). Meta-epidemiological studies have shown that biased trial results typically overestimate beneficial effects and underestimate harmful effects of the experimental intervention (21, 22). Therefore, trials with high risk of bias may ultimately mislead clinical decisions.

In the Cochrane review of psychotherapy for BPD, all trials were assessed as at unclear or high risk of bias in a least one domain (5). The most biased domains were blinding of outcome assessors, incomplete outcome data, selective outcome reporting, and other bias (covering what the authors refer to as: attention, affiliation, or adherence bias, all of which can be understood as a bias arising from the trialists allegiance to one of the assessed interventions) (5). The authors did not assess bias associated with blinding of participants or clinicians. However, blinding of all key persons involved in a trial should be implemented whenever possible (23). Some key persons are more easily blinded than others, e.g., outcome assessors, data managers, statisticians, the data safety and monitoring committee, and the decision makers (23), and the blinding status of these persons could easily be implemented in future trials. Whether participants and clinicians could (and should) be blinded can be discussed. There are obviously practical challenges associated with delivering a

treatment without being aware of its theoretical foundation. Furthermore, there are clinical challenges as self-confirming response expectancies associated with lack of blinding can be considered an "active ingredient" of e.g., cognitive behavioral therapy (23). On the other hand, lack of blinding of participants and clinicians can be understood as a bias in line with other unblinded persons involved in a trial. For a more detailed discussion about this dilemma, please consult Juul et al. (23).

Furthermore, I want to specifically highlight the problem with incomplete outcome data bias in BPD trials. Participants with BPD, and particularly adolescent populations, can be difficult to engage in follow-up interviews, once they are enrolled in a trial. If the degree of missing data is significant, this can seriously threaten the validity of the trial results. In systematic reviews, we generally tend to assess trials at low risk of incomplete outcome data bias, if missing data is less than 5% of all randomized participants (24). The 5% cutoff is not definitive, but it is a coarse rule of thumb. When comparing this rule with the missing data values sometimes exceeding 33% in psychotherapy trials with BPD (25), we as trialists must consider very carefully, how to better design trials at lower risks of incomplete outcome data bias. Multiple imputation, and other methods to statistically account for missing data can be used, if missing data is impossible to ignore. However, if the proportions of missing data are very large (for example, more than 40%) on important outcomes, no statistical method can solve that problem, and the trial results may then be considered hypothesis-generating only (24).

Usually, missing data will affect outcomes that require an action from the participant, e.g., if they need to fill out questionnaires or participate in a clinical interview. One solution could be to minimize the use of such outcomes to make participating in a trial less overwhelming for patients, while also considering more objective outcomes that can be retrieved from, e.g., national patient registries or medical records by (blinded) research personnel; i.e., hospitalization, suicide-related behavior, and employment status.

## Standardization of PICOs

In the Cochrane review of psychotherapy for BPD, most trials included small sample sizes, with the number of participants ranging from 7 to 151 (5). Furthermore, heterogeneity was observed in the selection of interventions and outcomes, hindering the pooling of effect estimates. The small sample sizes and the inability to pool results led to imprecise effect estimates (5). Therefore, future BPD trials should preferably be larger, and aim to assess similar PICOs (participants, interventions, comparators, and outcomes), so that pooling trials in a systematic review becomes less influenced by heterogeneity.

### Participants

The need to replicate existing trials is an aim that pragmatically conflicts with the wish for more personalized psychotherapy. BPD is a heterogeneous disorder with many potential subgroups (26). The more subgroups that are identified (e.g., patients with different levels of symptom severity at baseline), the more participants are needed, either if we should start multiple trials for every subgroup, or perform subgroup analyses embedded within a trial. While we should aim to conduct trials with different types of BPD patients to cover the whole spectrum of patient characteristics, we should still be mindful of which conclusions can be drawn from subgroup analyses that are exploratory by nature (8).

### Interventions and comparators

Several standardized interventions specifically developed to treat BPD and BPD-related symptoms have already been developed, including DBT, MBT, schema therapy (ST), and transference focused psychotherapy (TFP) (5). While developing new and potentially improved interventions may seem promising, more trials assessing the effects of the already existing BPD-interventions are still needed, if we want to confirm or reject intervention effects on several important outcomes (5). Furthermore, an adequate description of the assessed trial interventions and comparators is required for trialists to design replication trials and for clinicians to reliably implement interventions (27, 28). Both the experimental and the control interventions need to be described in detail (29). To improve reporting of interventions, the Template for Intervention Description and Replication checklist and guide (TIDieR) has been developed (28), which can be used as an addition to the CONSORT guideline for reporting of trials (30).

### Outcomes

Existing BPD trials have used a wide range of outcome measures, which makes it difficult to synthesize data in systematic reviews (31). Furthermore, the selected outcomes do not always adequately reflect BPD patient experience (31). This calls for a discussion of which outcomes are the most patient-important. A standard set of patient-reported outcomes for the International

Classification of Diseases—11th version (ICD-11) personality disorder classification has recently been proposed by the International Consortium for Health Outcomes Measurement (ICHOM) multidisciplinary working group (32). However, these recommendations did not cover more objective outcomes. Agreeing on a core outcome set (COS) for future trials of psychotherapy for BPD is needed and will improve the development of evidence-based treatment guidelines in the future (31). In my opinion, the field could move forward by including both continuous outcomes like quality of life and symptom severity, and also dichotomous outcomes like hospitalization, self-harm, suicide or suicide-attempts and employment status. However, the development of a COS is highly needed and should involve key stakeholders including researchers and methodologists but also patient organizations, relatives, clinicians, funders, and administrators, and should follow strict development guidelines provided by the Core Outcome Measures in Effectiveness Trials (COMET) initiative (33).

## Improving conflict of interest disclosures and retrieve unpublished data

Psychotherapy research has long struggled with the potential bias of trialists who believe in the superiority of one psychological intervention over another, a phenomenon typically referred to as attention bias or researcher allegiance (34). Researcher allegiance is a heterogeneous construct ranging from developing the treatment manual to advocating for it to contributing to a related disease model to, ultimately, conducting a trial showing results in favor of the new experimental intervention (35). Examples of financial conflicts of interest in psychotherapy trials are when trialists also have financial gains from e.g., professional trainings of that particular intervention, books, therapy manuals, courses, speaker's fees, paid advisory positions, grants etc. (34).

One way of assessing the potential impact of conflicts of interest is for systematic reviewers of randomized clinical trials to carefully look for signs of publication bias when performing a meta-analysis. Publication bias refers to the publication or non-publication of research findings, depending on the direction of the results (36). Trialists with a strong allegiance to an experimental intervention may decide not to publish the trial results, if the results do not comply with their expectations. Pre-registration of trials at registries such as www.clinicaltrials.gov are now required when launching a trial. Pre-registration of trials minimizes study publication bias (when trials showing negative or no effect are not published) and selective outcome reporting bias (when trialists fail to report unfavorable data, include only a subset of data analyzed, or change or omit the outcome of interest in the interest of statistical significance) (37). However, while pre-registration of trials are a methodological safeguard, both publication bias and selective outcome reporting bias may still occur.

Assessment of publication bias can be performed by visually inspecting funnel plots (36) and by statistically testing the funnel plot asymmetry using various tests depending on the outcome of interest (36). A funnel plot is a scatter plot of the effect estimates from individual trials against some measure of each trial's size or precision (usually the standard error) (38).

In the Cochrane review of psychotherapies for BPD, the inspection of the funnel plot suggested potential bias (small asymmetry) (5). Furthermore, the authors assessed almost a third of the included trials as being influenced by "other bias" such as attention, affiliation, or adherence bias, indicating a potential conflict of interest in most included trials.

To control for researcher allegiance on a trial level, trialists should aim to implement blinding of all possible key persons involved in data collection, analysis, interpretation, and dissemination of the trial results (23). Furthermore, disclosures of financial conflicts of interest for all contributing authors of published trial reports should be improved (34), and, on a systematic review level, authors should carefully try to retrieve unpublished data. Moreover, all trials need to be transparently registered before launch and all trial data transparently registered after analysis and publication (39).

## Conclusion

While we have already come a long way in both designing and implementing structured, manualized psychotherapies for BPD, and in assessing their effects in randomized clinical trials, the current evidence is still restricted by substantial methodological limitations. In this paper, I have highlighted some key methodological limitations and suggested the following recommendations: *balancing beneficial and harmful effects, minimizing systematic errors (bias), standardization of PICOs, improving conflict of interest disclosures, and retrieving unpublished data.* Improving these methodological limitations can lead to us potentially identifying more evidence-based treatments, which may ultimately result in better care for BPD patients.

The reader should take into account the potential limitations of this paper. The recommendations are based on my own opinion, rather than originating from an international

consortium of experts. Thus, the recommendations are in no way exhaustive, but may serve as a stepping stone for further improvement in the field.

Evidence-based medicine is the conscientious, explicit, and judicious use of best evidence in making decisions about the care of individual patients (6). Evidently, clinicians should, by default, offer psychotherapy supported by the best available evidence. It is our job as both clinicians and trialists to continuously make that evidence as trustworthy as possible.

## Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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## 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.

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# Mentalizing the patient–Patient experiences with short-term mentalization-based therapy for borderline personality disorder: A qualitative study

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**Background:** Mentalization-based therapy (MBT) is an evidence-supported psychotherapy approach for borderline personality disorder (BPD) that has been implemented in mental health services worldwide. Originally, MBT was developed as an 18-months program for BPD. However, a short-term (5 months) MBT program has been developed. Research into patient experiences with long-term MBT for BPD is scarce, and no studies have investigated patient experience with short-term MBT for BPD.

**Objective:** The objective of this study was to explore patient experience with short-term MBT for BPD in the Danish mental health services.

**Methods:** Semi-structured qualitative interviews were conducted with 12 outpatients diagnosed with BPD, who attended short-term MBT for 5 months. The interviews were verbatim transcribed and analyzed using thematic analysis with double coding.

**Results:** The analysis resulted in four subordinate themes: (1) *Treatment duration – too short or appropriately short?*, (2) *The group as a "safe space,"* (3) *Bad experiences impacted treatment negatively*, and (4) *My life has changed for the better.*

**Conclusion:** The results suggest that most of the patients were overall satisfied with short-term MBT, which they experienced as having a positive impact on their lives. However, a subgroup of patients wanted more therapy. This

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study highlighted the strengths and limitations of short-term MBT for BPD as experienced by the patients, and points to barriers in developing service-user informed short-term treatment options for BPD.

KEYWORDS

patient experiences, borderline personality disorder, short-term psychotherapy, mentalization-based therapy, personality pathology, qualitative research

## Introduction

Borderline personality disorder (BPD) is a highly prevalent and severe mental disorder characterized by a pervasive pattern of symptoms such as emotional dysregulation, impulsivity, interpersonal dysfunction, and exceedingly high rates of self-harm and suicide-related mortality (1). Psychotherapy is considered the primary treatment of choice for BPD, and a variety of different interventions exist. According to a recent Cochrane review, both dialectical behavior therapy (DBT) and mentalization-based therapy (MBT) can be considered evidence-supported for treating BPD [Storebø et al. (2)]. Both psychotherapy approaches are significantly superior to treatment as usual on several patient important outcomes, but the certainty of evidence is still considered very low. In addition, the review included a subgroup analysis of duration of treatment, but did not find any association between duration and outcome (2). However, this finding is only indirect and should be interpreted with caution. We are currently performing a systematic review with meta-analysis of short-term versus long-term psychotherapy for adult psychiatric disorders, including BPD (3). As of today, the optimal treatment duration for patients with BPD is currently unclear.

Mentalization-based therapy is a manualized and structured psychotherapy approach, rooted in attachment and psychodynamic theory, that was originally developed specifically for patients with BPD (4, 5). Mentalization refers to the capacity to reflect upon and understand one's own and other's mental states, i.e., thoughts, feelings, and desires (4). According to mentalization theory, patients with BPD are more vulnerable to experience frequent and severe impairments in mentalizing, in particularly when emotionally distressed. Impaired mentalization is considered the cause of core difficulties associated with BPD, such as interpersonal- and self-problems, impulsivity, and self-harm. MBT aims at promoting patients' capacity to mentalize, and to restore it, when lost (4). Importantly, MBT is the only therapy for BPD that has been shown to have long lasting effects on patients after 8-years follow-up (4). Due to the high prevalence of BPD combined with the long-term treatment format, there are often quite long-waiting lists for psychotherapy (6). As a result, MBT is often delivered in different formats and durations for patients with BPD in mental health settings around the world (4). Little is known about the effects of such modifications, including how they are experienced from a first-person perspective by patients.

Recently, a short-term version of MBT has been developed to treat outpatients with BPD (3, 5, 7). The short-term MBT version was developed as a part of a randomized clinical trial assessing the beneficial and harmful effects of short-term versus long-term MBT for outpatients with subthreshold or diagnosed BPD (3, 5, 7). The short-term adaptation is a 20-week program that is overall similar to the original long-term program, but differs in regard to certain parameters: (1) short-term MBT is lower in treatment intensity, i.e., duration (5 versus 14 months), (2) the same therapists provide both individual- and group therapy in short-term MBT (i.e., combined psychotherapy), (3) short-term MBT is structured in closed groups where all participants starts and finish together, and (4) consists of brief psychoeducation (5 weeks) in the beginning, which is delivered in the group. Short-term interventions might be highly useful in resource-limited services, such as public mental health services, due to it being less resource intensive, and its potential to reduce waiting lists and decrease drop-out, which are generally high for patients with BPD (8).

Despite the increasing number of psychotherapy trials for BPD, most research have focused on evaluating the intervention effects of the program in randomized clinical trials, while little attention has been paid to the patient experience of the intervention. However, adding qualitative approaches to randomized clinical trials, has several advantages. For example, the use of qualitative data in combination with quantitative data can strengthen the validity and generalizability of the findings, shed light upon who's likely to benefit from a given intervention, investigate why a given intervention works for some but not others, and highlight helpful and facilitating factors to improve treatment of BPD (9). Hence, this type of research is of great value both to the patients, relatives, and therapists, and is essential to inform clinical practice and further development and research into short-term interventions for BPD.

Over the past decade, the use of qualitative methods to investigate patient experiences of psychotherapy for BPD is accumulating, with a significant number of studies focusing on DBT (10, 11). To the best of our knowledge, four qualitative papers and one mixed-method paper focusing on patient experiences of MBT, primarily long-term, for BPD has been published (12–16).

Lonargáin et al. (15) explored seven outpatients' experiences with MBT for BPD (duration ranging from 3 to 14 months). Their main findings were that participants experienced group therapy (open groups) as unpredictable, uncomfortable, and challenging due to difficulties with establishing trust. Indeed, patients highlighted individual therapy as a key ingredient in experiencing positive change (16). In another study, Gardner et al. (14), explored the lived experience of eight patients receiving MBT for BPD (duration ranging from 6 to 9 months) (15). The most salient themes concerned patients experience of their BPD diagnosis and group therapy. Group therapy was described in both negative and positive terms and was regarded as a "necessary evil" facilitating reduction of BPD symptoms. In particularly, the importance of shared experiences and/or learning from being with others was stressed (15). These were also salient themes in a study by Dyson and Brown (13), who explored six patients' experience of MBT for BPD (duration ranging from 6 to 30 months) (14). In addition, patients' willingness to change was highlighted as an important aspect of treatment improvement. Even though patients perceived MBT as helpful, the patients did not feel like they were cured (14). In a mixed-method study, Barnicot et al. (12) interviewed 73 outpatients with a personality disorder, primarily BPD, who attended either DBT (duration: 12 months) or MBT (duration: 18 months) (13). The study pointed to helpful and hindering common factors across DBT and MBT for BPD, but also elements unique to the different models. Similarly, Morken et al. (16) explored which therapeutic elements patients with personality disorders, all of whom had significant borderline traits, and comorbid substance use, experienced MBT (duration: up to 3 years), considered useful and less useful (17). Patients stressed the importance of the therapist's capacity to tolerate strong emotions and address the therapist–patient relationship, as well as being mentalized from multiple perspectives in the group in facilitating improvement.

While previous qualitative studies on MBT mainly include the experience of patients receiving long-term treatment, which cannot be transferred to short-term MBT, there is a gap in the literature. Furthermore, as short-term MBT is currently being used in mental health services worldwide, while also being assessed in a randomized clinical trial, it is important to study the patient perspective. To the best of our knowledge, no such study currently exists. This study seeks to fill this gap by exploring patient experiences with short-term MBT for BPD.

# Materials and methods

The objective of this study was to explore patient experiences with short-term MBT for BPD using a qualitative framework. The Standards for Reporting Qualitative Research (SRQR) has been used to ensure reporting transparency (17).

## Context and clinical setting

This study was conducted in the Mental Health Services of the Capital Region of Denmark. The short-term MBT program was delivered at the Outpatient Clinic for Personality Disorders located at Stolpegaard Psychotherapy Centre. The outpatient clinic specializes in MBT for personality disorders, and all the therapists in this study have received training in the short-term MBT program by national and international MBT specialists, as a part of a large randomized clinical trial (3). The therapists delivering the trial interventions are trained in and provides both short-term and long-term MBT for BPD, i.e., 5- and 14 months.

## The short-term MBT program

Short-term MBT is a 20-week program consisting of five sessions of psychoeducation and introduction to MBT (called MBT-I) followed by 15 sessions of group MBT (MBT-G) in closed groups accompanied by combined individual sessions every second week. Each group consists of seven to nine patients. Furthermore, patients and their relatives are invited to participate in two psycho-educative meetings. Finally, the participants are offered tree individual follow-up sessions after end of treatment. The program is based on the existing MBT manual, which has been modified to the short-term format in close collaboration with the developers (3).The manual is available upon request. See **Supplementary Figure 1** for an illustration of the short-term treatment format.

## Design

Semi-structured qualitative interviews were used to collect data about patient experiences with short-term MBT. The interviews were carried out by two research assistants (NB and MH-A). Both research assistants are experienced in conducting structured clinical interviews with patients with BPD, but without prior experience in working with MBT for BPD. Participants were interviewed between 0 and 30 days after finishing their group therapy. The interview guide was designed to capture patient experiences with open-ended questions about the therapy, including structure, format, duration, etc. Nine interviews were conducted face-to-face, while three were conducted *via* telephone due to the COVID-19 pandemic. The interviews that were conducted face-to-face were held in another part of the center apart from the clinic, where they had received treatment. The interviews lasted between 18 and 90 min, with most of them being around 1 h of duration. The interviews were audiotaped and verbatim transcribed. Data were anonymized and pseudonyms were given to the participants.

## Participants, recruitment, and procedures

Participants were recruited using a purpose sampling methodology, that is, all participants enrolled in the short-term MBT program at the outpatient clinic for personality disorders were considered for participation in this study. Clinicians were asked to identify eligible participants, ask if they would be willing to participate, and obtain written informed consent. Participants were included in the study if they complied with the eligibility criteria outlined in **Supplementary Table 1**. Consenting participants were then contacted by a member of the research team (EH, MH-A) to set up a date for the interview. Recruitment took place from September 2021 to March 2022.

Twelve participants from five different short-term MBT groups were interviewed for this study. This sample size was considered *a priori* as appropriate to conduct in-depth analysis of the individuals' experiences and to identify and describe themes across participants (18). Participants were on average 26.4 years of age, primarily women (88%), and with Danish nationality (67%). Participants in this study were heterogenous in terms of psychosocial functioning with most of the participants either working (25%) or studying (33%). See **Supplementary Table 2** for an overview of patient characteristics.

## Data analysis

The data analysis was conducted using thematic analysis (18). Thematic analysis (TA) requires continuous questioning of assumptions made about data throughout the entire analytical process (18). The identified themes are hereby considered a product of a reflective analytical and subjective process and not something that emerges from the data passively and is simply uncovered by the researchers (18). As an analytical method, TA is theoretically flexible though still constrained by the epistemological assumptions present (18). The epistemological approach chosen for this study was a hermeneutic-phenomenological one, as it entails a focus on the lived experience of the individual in detailed description as well as a continuous process of reflexive circling back in the interpretation of data. TA is useful in making this process overt and concretized to ensure a more transparent approach that is conscious of bias.

To analyze the qualitative data, we applied the methodological principles by Braun and Clarke (18). The analytical method consists of five phases that result in a varying number of themes. *The first phase* entailed the conduction of the interviews, which were performed by MH-A and NB, as well as familiarizing oneself with the data. The interviews were conducted using a semi-structured interview guide and followed by a discussion of each interview between MH-A and NB. To ensure that all parties were familiar with all interviews, MH-A transcribed the interviews performed by NB and vice versa, and EH read through the entirety of the transcribed material several times. *In the second phase,* systematic initial coding of the full data material took place using Nvivo-software (19). Data was dual blind coded by MH-A and NB to keep an open mind toward the data. While coding, notes on the process were made simultaneously as potential themes were beginning to form. *The third phase* involved collecting all codes relevant to a potential theme and collating the extracts. *The fourth phase* involved a refinement of themes through a discussion of the codes that had been formed thus far, in relation to the coded extracts and to what degree the current themes covered the content of them. The relevance of the themes was also considered and revised in relation to the data set as a whole, as dictated by Braun and Clarke (18). Then followed *the fifth phase*, that entailed the process of naming the themes and further defining and refining them. This process involved multiple discussions of each theme between EH, MH-A, and NB continuously circling back to codes and extracts to ensure the themes were representative of the finds. For an overview of the process, see **Supplementary Figure 2**.

# Results

The analysis resulted in four subordinate themes: (1) *Treatment duration – too short or appropriately short?,* (2) *The group as a "safe space,"* (3) *Bad experiences impacted treatment negatively*, and (4) *My life has changed for the better*.

## Treatment duration – Too short or appropriately short?

Eight participants contributed to this theme by sharing an initial perception of longer treatment duration as inherently better, before they had even started treatment themselves. However, most participants described that looking back now, at the end of their treatment, they had experienced great improvement and now perceived the treatment duration as appropriately short, even though ambivalence toward termination was still expressed. Two subthemes were developed: (a) *In the end, the treatment was appropriately short*, and (b) *I feel like I need more therapy*.

### In the end, the treatment was appropriately short

One participant reflected upon his view on treatment duration before starting treatment compared to after termination of treatment and how these differed. Before beginning treatment, the participant felt completely overwhelmed by his issues and therefore felt that he would need as much treatment as possible to work through them. However, after terminating treatment, this had changed and he

was actually glad, that therapy had not gone on for longer than it did. The participant described it this way:

> *"I imagine that if I had been offered treatment for a year, I would have said yes (. . .) because I really needed help, and I had this feeling that there was a lot to catch up on. There is a huge mess inside me, and I want as much [treatment] as I can get. But (. . .) I'm happy that I was only [in treatment] for half a year because it has been helpful, and I was also fed up with it [therapy]."*

This participant also voiced experiencing treatment as long and with periods of time where he had other things going on in his life that he would rather spend time and energy on. This made it difficult and less desirable for him to focus entirely on the treatment during the 5 months. Another participant disclosed a seemingly opposite reaction to being assigned short term-MBT. Looking back, she felt that the duration of treatment had been too short, but at the beginning of treatment the thought of committing to treatment for over a year had seemed overwhelming:

> *"It was easier to dedicate myself to six-months of treatment rather than 12-months [ed. 14 months]. That's why I didn't choose 12 months, even though I think it could have been more effective when you examine yourself and try to learn different methods of communication with others."*

Interestingly, one of the participants also described how being assigned the shorter treatment left her feeling like her situation was taken less seriously. However, as stated, she was well satisfied with the treatment in the end.

> *"I was worried (. . .) because it was short, and I was scared that not much could happen in half a year (. . .) but I think I've been proven wrong. I also think (. . .) that the system has a way of not taking me that seriously. So being assigned the short version instead of the long one was also like, yes, as if maybe it [her situation] wasn't that bad, but I was actually happy about it [the treatment]."*

Even though most participants seemingly perceived the treatment duration as appropriate, some still expressed ambivalence feelings at the end of the treatment. This included worries about the future, nervousness about being on your own and feelings of sadness related to having to part with the group. One participant described the feelings about terminating treatment as a more general experience as a part of living:

> *"But that is also just (. . .) a paradox that you (. . .) experience all the time in your life, That you're ready, when it's over. (. . .) So, I don't know if it can be avoided by the duration of treatment being longer."*

## I feel like I need more therapy

Though most participants were satisfied with the duration of treatment, four participants described a wish for more therapy. Of these, three participants explicitly described a history of trauma which they did not feel was possible to work with properly within the timeframe of short-term MBT. These participants pointed to the fact that building trust with the therapists took quite a while and was not fully established until right toward the end. Thus, when the participants finally felt ready to open up and address their traumatic past, the therapy was about to terminate. All four of them described a wish for more individual sessions, and two of them described wanting treatment specifically targeting their trauma. One participant explained it in the following way:

> *"In relation to my own personal story I have a very hard time (. . .) trusting other people. And that is a defense mechanism of mine, because throughout the whole of my childhood I have been traumatized and treated horribly."*

These four participants also shared an emphasis on the wish for more individual sessions more so than expressing a need for prolonging the group sessions. A participant elaborated on this:

> *"In the individual therapy sessions, I felt like I compensated for not having the opportunity to talk about the things from my past that I was dealing with that were taking up a lot of space. So, we talked about my past all the time [in individual therapy]."*

Similar viewpoints were expressed by two other participants who had explicitly described a history of trauma. They all shared a positive experience with the treatment which they viewed as helpful but unable to completely accommodate their need for working through what one participant referred to as *"(. . .) a lifetime of issues (. . .),"* especially due to the amount of individual therapy sessions. One out of the twelve participants expressed dissatisfaction with the treatment in general. In particular, she highlighted that an attachment to the group was not able to fully form. She stated:

> *"It has probably been a bit short [the treatment]. I don't really feel like I formed a good enough relationship with the others to be able to share that much."*

Furthermore, this participant expressed finding most themes of group therapy irrelevant to her situation. She was however satisfied with the individual therapy sessions, which she described as a reason for not dropping out of treatment, even when she found the group sessions irrelevant.

## The group as a "safe space"

Eleven participants contributed to this theme by highlighting the helpful role that closed groups and/or combined therapy played in establishing a safe environment in the therapy. The two subthemes created were: (a) *Closed groups promoted a sense of trust between group members,* and (b) *The individual therapist was an ally in the group and created a sense of coherence in therapy.*

### Closed groups promoted a sense of trust between group members

Seven participants contributed to this subtheme by describing a positive experience of being in a closed therapy group, i.e., all group members start and finish the group therapy together, and potential dropouts do not get replaced. Most of the participants disclosed that being in a closed group made it feel like a safe space, facilitating openness among the group members and furthering participation in the group sessions. On this matter, one of the participants stated the following:

> *"(. . .) I think it was easier to open up. And then you don't hold back as much. And you get to know each other and feel safe around each other. (. . .) I like that it's the same people you're seeing. After all, it's vulnerable things we talk about. I have previously had much difficulty sharing those sorts of things with other people."*

Despite an overall agreeance between the participants on a positive experience with being in a closed group, some difficulties were also mentioned. A group member described bringing up a theme concerning her own experiences with sexual assaults, which in her experience was not something that the group could handle. According to her: *"I really felt like, like it was brutal. People were completely silent. (. . .) It seemed like the theme was bigger than us that day*." Another participant described that she found it difficult to take her place in the group and discuss the themes that were important to her because she felt that they differed from the themes that were relevant to the other group members. Another participant, who also found being in a closed group to be a positive experience, reflected on the possible downsides hereof. She reckoned, that even though being in a closed group was more comfortable and therefore preferable, the exposure to new group members might be beneficial in order to "face your fears." She elaborated this:

> *"(. . .) when you feel anxious about something you need to face it. So, if someone were to come in from outside therapy, then it would be something you could learn to deal with. Because that's what life is like, and you have to be careful not to be overprotective because of our mental disorder."*

This reflection was however not shared by the other participants and some even thought of the slow-open group as potentially harmful for the therapeutic process, as it might slow down the process of feeling safe and opening up in the group. One participant even referred to long-term MBT as *"(. . .) the more uncertain long one (. . .)"* which points to the internalized perception that some participants might have of long-term MBT with the slow-open group format.

### The individual therapist was an ally in the group and created a sense of coherence in therapy

Ten participants stated that conjoined therapy, i.e., the individual therapist being one of the group therapists, was a positive experience in various ways primarily related to establishing trust with therapists and the group, as well as coherence between individual and group therapy. Multiple participants made remarks on the individual therapist being one of the group therapists, which made group sessions feel safer and in turn made sharing more comfortable. One participant specifically mentioned how this affected her desire to share certain things with the group. When asked how she felt about conjoined therapy, she stated:

> *"Oh, I thought that was very nice. Because that means that she's [the therapists] aware of some of the things that the other therapist isn't (. . .) and it just makes it safer somehow to bring up a topic."*

Furthermore, several of the participants brought up how the individual therapist was helpful in giving them a gentle "push" at times to be more participating in group sessions. This could be done either by discussing a theme or a situation in an individual session prior to sharing it with the group or by directly encouraging more active participation and supporting the participant when doing so. One of the participants uttered how her therapist would sometimes go about actively encouraging and supporting participation and sharing:

> *"She [the therapist] says 'Okay, what do you think about that?' (. . .), so that I got to participate a bit more. I thought it was nice that we had talked about some of these things in individual sessions, where she maybe said 'Come forward' or 'Get involved' or something like that. I felt like she was more aware of me as well, and I found that very nice. (. . .). She did that well."*

Another participant described how discussing a theme beforehand in an individual session made it possible to share more personal matters with the group. She noted that:

> *"(. . .) when there was a conflict in the group, we could use the individual session to find a solution and talk about it. (. . .) I could also pick some more personal things to talk about in individual therapy (. . .) and then I could bring it to group therapy after. I think that worked really really well."*

The quote also highlights one of the advantages of conjoined therapy, which was described by several of the participants, namely the possibility for discussing potential conflicts in the group therapy in individual therapy sessions. This included a sense of security associated with the individual therapist being in the group to witness potential conflicts and the participant's dynamics with other group members. This contributed to create coherency between individual and group therapy, which was experienced as meaningful by the participants.

## Bad experiences impacted treatment negatively

This theme was generated from statements of eights participants that revolved around bad experiences in therapy, which included being interrupted, feeling mistrust toward the therapists, and unresolved conflicts with therapists, all of which were not resolved, thereby negatively impacting the treatment going forward.

Though adhering to the timeframe is a significant part of MBT group sessions requiring therapists to interrupt patients and manage the time and format of MBT, four participants experienced these interruptions as highly negative. One participant described how being interrupted and unable to share her point of view with the group as something that made her doubt whether the therapist found her input irrelevant. Another pointed to how it could be tough to be interrupted whilst practicing being vulnerable in group and hoped that there might be a better way to do this. This was supported by a participant who called the interruptions "unbalanced" and something that could leave group members, whose theme had been chosen for that session, looking like they "really" were not feeling well. The interruptions or having to cut off participants while they were talking, seemingly had an impact on the surrounding group members as well, even though they were not the ones being interrupted. One participant elaborated her thoughts on this:

> *"(. . .) it was unpleasant on behalf of the others. Because I could see on their faces that they were hurt by it. So, for me, yes, for me it was unpleasant more on their behalf. But you can't help but wonder if I will be cut off when I try to talk about something that is very important to me?"*

Five out of the nine participants highlighted the impact of conflicts with the therapist and/or therapists on their experience of treatment. Most of the participants that experienced unresolved conflicts with the therapist and/or therapists reported that it influenced the treatment in general. One participant, who had several conflicts with her group therapist during group sessions, stated that she had on multiple occasions considered dropping out due to feeling misunderstood and receiving comments from the group therapist that made her uncomfortable and "not right." She stated:

> *"I mean, I don't feel like I've had any trust towards [the group therapist] at all."*

Another participant felt that the therapists did not respect her boundaries when they would make her participate in group sessions despite her at times not wanting to. She stated that this created "a lot" of mistrust toward the therapists and made her consider dropping out of treatment. One participant mentioned a certain conflict several times throughout the interview and had experienced it as having multiple negative consequences for her relationship with the group therapist and feeling safe in group therapy sessions. She described a situation where the group therapist interrupted her gesturing a stop-motion with her hand. The participant experienced this interruption as *"(. . .) a slap in the face (. . .)"* and especially the following handling of the situation was perceived as upsetting. She described how she, before the conflict, in that session felt like she was in a good place for the first time since beginning treatment. After the conflict she recounted that:

> *"(. . .) Honestly, it was just one small situation. It's not so much that she did it. The problem is how it was handled afterwards. And that actually made me walk around for a week with anxiety. And it put me back in a situation that was really uncomfortable. So, it overshadowed that I had come really far with many things, which makes this whole situation really severe for me."*

This conflict seemingly affected in large how the participant perceived her experience of treatment overall, looking back. Furthermore, a participant described an episode that occurred at the second to last group session. The participant had shared an episode with the group and the therapist had made a comment which was described as hurtful.

> *"(. . .) I only went to group therapy because I wanted to see the others in the group. I thought being there was a bit unpleasant when she [the group therapist] was there and I was kind of hoping she wouldn't be there (. . .) And I just thought that it would be a shame if I were to stay away because of that, so I went anyway. So, she apologized to me then. But I still found it difficult."*

In these situations, the conflicts remained unresolved at the time of termination of treatment and the feeling of therapy being a "safe space" was not restored in time. On the contrary, the breach of trust remained and made the therapeutic situation unpleasant for the participants.

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## My life has changed for the better

The theme was created from the statements of eight participants surrounding the discovery of experienced positive changes posttreatment. What seemed to be of importance was especially the discovery and understanding of their own emotional reactions and having achieved better communication skills. This entailed a deeper acceptance and a more positive view on themselves, their emotions, and thoughts. Several participants described how they experienced being more balanced and in control of their emotions, which made them better at handling difficult situations and emotions.

Being in therapy, especially group therapy, was a place where the participants learned to broaden their perspective. Three of the participants highlighted specifically how their mentalizations skills had improved posttherapy and reported that discovering how other people's minds differ from their own, helped them shift perspective. This was perceived as very helpful for understanding people around them. One patient described that the way the therapist kept repeating questions and focusing on potentially underlying feelings for certain actions or statements was very useful. He described that before starting therapy he would quickly become defensive and aggravated during discussions or disagreements, and that this had changed drastically. He stated:

> *"(. . .) Something that has changed is, and it's only positive, in relation to things like patience towards other people when they are mad at or irritated with me. Or when you're having a discussion or conflict, I've become better at staying calm instead of going off completely. And I definitely think that is what that mentalization-thing has done. Because I have learned to stop and like 'What is going on here?,' 'What is going on with you?,' 'What is going on with me?' Whereas before I had many issues where I was really quick to go off and quickly felt I had to get defensive, you know?"*

This patient described how internalizing some of the therapists' questions made it possible for him to control impulses, which he had found very challenging beforehand. He also described the change and the impact it had had on his life:

> *"I'm much more balanced. And when I wanted to (. . .) pack up everything and leave (. . .): 'I'm going to go travel for three years,' 'I'm going to leave everything behind and say goodbye to everyone.' Then there's like a zoom out function where I'm like 'Is this really what you want?' and 'Why am I feeling like this?' And that is because they [the therapists] kept saying 'Why do you have this feeling?' So now I can say to myself 'But why are you feeling like this right now?' Maybe it was just because something got cancelled. (. . .) there is just a step between thoughts and action and that's really really good. I mean, that's impulse control. So great for my life! That has been a big difference."*

One patient focused on how being in the group had impacted her social life and interactions outside of therapy. She pointed to the group giving her new positive experiences of sharing thoughts and feelings with the people around her, which in turn seemed to have significant impact on her overall well-being. She stated:

> *"It's one of those things that I will take with me from therapy (. . .) that it's possible to have this space where you can talk to other people – and it doesn't have to be other patients. It can be friends from university, it can be family. It can get difficult but, the fact that it is possible is very helpful."*

Additionally, four participants uttered how their lives were drastically different now from when they first started short-term MBT treatment in terms of level of functioning and quality of life. One participant described it like:

> *"I was a completely different person half a year ago. I felt really down (. . .). If I had to talk about something difficult, I would just have to say two words and I would be crying. (. . .) I have become much better at picking myself up and pulling myself together. I'm much happier."*

In addition to this, another participant described how the positive changes she had experienced posttreatment made her able to "*(. . .) return to life again (. . .).*" One of the participants described how this had improved her quality of life:

> *"I feel like communication has gotten easier because I have gotten better at being aware of what is going on. Sometimes. And yes, dealing with conflict, maybe not dealing with conflict, but escalating conflict is not as uncontrolled. I mean I don't feel like it takes me by surprise that I'm angry (. . .). I feel like you're not like blind to what's going on. So, in that respect, it has given me a higher quality of life because I feel that I've gotten more control over my actions in daily life."*

# Discussion

In this study, we explored patient experiences of short-term MBT for BPD in an outpatient clinic for personality disorders in the Mental Health Services of the Capital Region of Denmark. Our analysis resulted in four subordinate themes: (1) *Treatment duration – too short or appropriately short?,* (2) *The group a as "safe space,"* (3) *Bad experiences impacted treatment negatively,* and (4) *My life has changed for the*

*better*. Overall, we found that patients were satisfied with the treatment, which they experienced as having a positive impact on their lives. However, we also found that a subgroup of patients expressed a wish for more therapy. Factors facilitating or hindering improvement were highlighted. This is the first qualitative study to explore patient experiences of short-term MBT for BPD. This study contributes with importance knowledge about how patients with BPD experience therapy and points to hindering and facilitating factors for improvement. The results may also be relevant to other short-term therapy models based on other theoretical models than MBT. Implications and recommendations for clinical practice and future research is discussed.

In regard to the first theme, *Treatment duration – too short or appropriately short?,* many patients described an initial skepticism toward the treatment based on an assumption that "the longer treatment, the better." Even though this was only evident pre-treatment, this common narrative among the patients may be rather problematic as research show that patients' expectations and preliminary attitudes to psychotherapy influences the outcome (20). Therefore, it is important that patients perceive their treatment as relevant to them and their situation. In our case, it seems as if much of the skepticism was due to the patients initially not perceiving the treatment as long enough for them to improve. Interestingly, this assumption is somewhat different from the current evidence, which indicates that treatment duration is not related to improvement, that is, long-term treatment for BPD does not seem to be superior to short-term treatment (2). Some participants also associated being allocated to the short-term MBT to a sense of "not being taking seriously" which could be related to both a negative self-image and an epistemic vigilance (1, 21). This may indicate a need for improved dialogue in the preparation phase of short-term treatments. Research stress the importance of pre-treatment preparation and shows that patients who have been prepared thoroughly are more likely to experience higher levels of group cohesion, experience less anxiety, have higher attendance rates, and have more hope in terms of the results of therapy (22, 23). This finding also points to the importance and power of language. In other words, what we name the therapy have connotations and matters to the patients.

Many patients also described ambivalent feelings related to terminating therapy. It was quite common among the patients to describe an increased sense of anxiety about terminating therapy and worries that ending therapy would cause deteriorating of painful emotions. Termination may be particularly difficult for patients with BPD as well as for the therapists working with these patients, as evident in the current study. We have previously proposed a mentalization-based approach to detect and intervene when terminating MBT with BPD patients (24). As an example of a termination-related MBT intervention, we proposed to extend the case formulation with a termination formulation, in which the patient can re-examine treatment goals, addresses how to detect mentalizing failures in the future, specify future mentalizing goals, and attend to unresolved issues with either the other group members or therapists [Juul et al. (24)]. Interestingly, ambivalent feelings related to terminating therapy may not be exclusive to BPD patients. In a recent qualitative study of patients' experience of transdiagnostic CBT for patients with anxiety disorder and depression (25), also found this. This could indicate that ambivalent feelings at termination may be more of a general phenomenon rather than a diagnosis specific or therapy specific.

As highlighted in the subtheme, *I feel like I needed more therapy*, four patients described a wish for more therapy. Of these, three patients explicitly talked about a history of trauma, and that this was not sufficiently addressed in short-term MBT for BPD. Two patients described how it took them a long time to develop a trustful relationship with their therapists, and that they therefore first started to share and explore sensitive topics, when the individual therapy was about to end. Indeed, all the three patients expressed a wish for more individual sessions. They felt that they could not share more personal issues, either because it was too painful or private, or not appropriate to bring up in the group. According to mentalizing theory, it is assumed that patients with BPD have a disrupted attachment system, which is regarded the root of the core psychopathology, i.e., dysregulated emotion regulation, feelings of abandonment, and interpersonal problems (4). More recently, the MBT literature has focused on the concept of epistemic trust, which refers to ability to trust social knowledge as communicated by others (26). It has been proposed by Fonagy et al. (26) that patients with epistemic mistrust require longer treatment duration as trust and openness first is to be established before patients can begin meaningful psychotherapeutic work. In line with this, Bach and Simonsen (27) suggest that lack of epistemic trust is linked to more severe personality functioning. It is evident that many of the patients with BPD presents with a history of trauma, in particularly childhood trauma (28, 29). More than 30% of patients with BPD also have comorbid PTSD (30, 31), and it is estimated that 40–50% of the patients with BPD also meet the criteria for BPD (32). Based on this, we are strongly encouraging more research into combined BPD and PTSD treatment (33). We hypothesize that a combined treatment format for patients with BPD, who present with trauma, and are distressed by this, may benefit from trauma focused therapy. Thus, patients with more complex trauma, may perhaps require more therapy, but not necessarily longer treatment for BPD. In fact, two of the patients expressed a wish for trauma focused therapy, and not more MBT for BPD. Further, this also highlights the need for more research on epistemic trust, and its role in psychotherapy for psychiatric disorders in general, but in particularly in the case of BPD. Perhaps, offering traumatized patients more individual sessions

or separate trauma focused psychotherapy could potentially improve treatment outcome.

In regard to the second theme, *The group as a "safe space,"* patients pointed to the importance of having: (a) the same therapist in both individual- and group therapy, and (b) the closed group format in promoting a sense of coherence and trust. This entailed a subjective feeling of belonging to the group and being supported, which in turn increased patients' motivation to attend therapy and their willingness to share and explore in the group. These findings are relatively unique to our study compared with findings from previous studies. For example, Lonargáin et al. (15) found that patients experienced MBT group therapy as unpredictable, uncomfortable, and challenging especially due to difficulties with establishing trust, which was exacerbated by the change associated with the open group format (16). Indeed, all participants in their study found the arrival of new members disruptive to therapy, and this was particularly pronounced for the participants who received therapy for less than 5 or 6 months (16). According to the patients in their study, the open-group format interfered with the trust that has already been built among the members, and that the process of trust had to begin all over again with the arrival of a new group members, thus impeding openness in the group (16). Some of the patients in the Lonargáin et al. (15) study also had their individual therapist as one of their group therapists, and similar to our findings, they valued this format, which led them to feel safer and more comfortable in the group. This could correspond to the notion of group cohesion. Group cohesion is regarded as one of the key curative factors in group psychotherapy (20), and is considered the same as therapeutic alliance is in individual therapy (34). Although group cohesion was not directly assessed in this study, patients generally experienced the short-term MBT group as a safe space akin to the concept of group cohesion.

The theme, *Bad experience impacted treatment negatively,* suggests that ruptures in the therapeutic process can impact treatment negatively when experienced as unresolved by the patient. In psychotherapy, rupture, and repair are complex processes that are central to the therapeutic process of MBT and the dynamic within the group and with the group therapist (35). Ruptures can range from tension between group members, between group members and the therapist, disagreements about different elements of therapy, etc. (36). Ruptures can be categorized in two subtypes: one being a confrontational type and the other a withdrawing one (37). When a rupture occurs, it most likely entails a break of trust and misalignment of intentionality that, if repaired, is temporary. In MBT, ruptures create essential opportunities for social development when properly repaired. This entails that a situation of rupture is tolerated and handled by the therapist and that the group members are actively engaged in the process of repair (35). In the short-term MBT program, it is possible that certain aspects of rupture and repair processes differ compared to long-term MBT formats. Certainly, our findings suggest that the reestablishment of epistemic trust in the case of a rupture between a group member and the therapist did not always occur. However, it is uncertain if these ruptures would have been repaired if the MBT group had gone on for longer, or if the repair simply failed without the therapist being aware of the scope of the rupture, as it was experienced by the group members. The process of repair is rarely a straightforward one, which can make complete resolution of a rupture difficult to determine. Gardner et al. (14) found that participants experienced feelings of frustration and rejection due to the timeframe of the group sessions and that they did not seem to be aware of the culprit of these feelings but instead perceived the timeframe negatively (15). Similarly, the participants of the present study did not seem to reflect on why they perceived being interrupted or not having their theme chosen for the group session highly negatively. Awareness of the scope of these frustrations seemingly was not present with the therapists in a way that successfully translated to the participants and their understanding of what purpose the timeframe serves.

Regarding the perceived positive changes following treatment, which was described in the theme, *My life has changed for the better*, one of the main findings of this study was that participants described an increased or new-found ability to take a step back from a situation and be able to assess it differently than before. This included being able to recognize the perspectives of others and how it differs from one's own view. Morken et al. (16) made similar discoveries with patients, who had been receiving long-term MBT, emphasizing the positive effect of realizing that other's perspectives could be different than their own and respecting and accepting that (17). Increased self-awareness was another factor that was emphasized as having a positive impact on their life and relationships. In the study of long-term MBT by Lonargáin et al. (15), it was found that the sense of becoming more aware could also include awareness of previous situations where the participants had not been mentalizing and thereby realizing how to better handle situations now, e.g., by not making assumptions about other's motives (16). This strongly resembles our main findings of participants describing being better at putting themselves in the shoes of other's including not jumping to conclusions and potentially escalating conflict. This positively affected the patients' ability to communicate with others, thus leading to improvement in psychosocial functioning. A similar finding was also represented in a study by Gardner et al. (14) which found that the participants experienced improved social skills post-treatment which was linked to improved quality of life and a more positive outlook on life (15). Lonargáin et al. (15) likewise found that participants seemingly had a more positive view on self and others and viewed the future as brighter (16).

### Methodological considerations: Strengths and limitations

This study has several strengths. First, the current study was carried out in the Danish mental health services. Hence, they reflect real world outpatient treatment resulting in high external validity. Secondly, the findings are based on qualitative interviews with 12 patients, which is considered an appropriate sample size for a qualitative study to draw meaningful conclusions (18). Third, the sample was rather heterogenous and represented patients with different socio-demographic backgrounds, ethnicity, and genders. Importantly, the identified themes were clear despite the differences in the samples, thus strengthening the validity of the results.

This study also has some limitations. First, we did not interview any patients, who had dropped out of treatment, and it is likely that they would have provided different accounts of short-term MBT for BPD. Secondly, the interviews were conducted by two research assistants with no prior experience in working with MBT for BPD. This may have resulted in less detailed accounts of the patient experiences due to their limited knowledge and experience with MBT. However, the interviewers lack of clinical experience with MBT could also be considered a potential strength of this study, as it enabled an analytic approach with fewer established assumptions regarding how BPD patients experiences MBT.

## Conclusion

Short-term MBT has recently been developed and implemented in the Danish Mental Health Services. However, research about patient experiences with short-term MBT is lacking. In this study, we found that patients overall were satisfied with short-term MBT, which they experienced as having a positive impact on their lives. However, we also found that a subgroup of patients expressed a need for more therapy. This study contributes with importance knowledge about how patients with BPD experience short-term MBT and points to hindering and facilitating factors for improvement. Implications and recommendations for clinical practice and future research was outlined.

## Data availability statement

The original contributions presented in this study are included in the article/**Supplementary material**, further inquiries can be directed to the corresponding authors.

## Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. 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

EH, MH-A, and SJ: conceptualization and methodology. EH, MH-A, and NB: analysis and data collection. EH: writing—original draft and project administration. EH, MH-A, NB, SJ, and SS: writing—review and editing. EH and SS: supervision. SJ and SS: funding. All authors have read and agreed to the published version of the manuscript.

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## Conflict of interest

The authors declare that this study received funding from Tryfonden. The funder was not involved in the study design, collection, analysis, interpretation of data, the writing of this article, or the decision to submit it for publication.

## Publisher's note



## Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2022.1088872/full#supplementary-material

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# Situating personality disorder within its maladaptive narrative identity ecology

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KEYWORDS

**narrative identity, disturbed narrative ecology, personality disorder, storying, multi-leveled storying, psychopathology**

## Contemplating the role of narrative identity ecology in personality disorders

Personality disorders (PD) are characterized by rigid patterns of dysfunctional thinking, feeling, and behaving within most contexts and across various relationships (1–3). Categorical and, particularly, dimensional models of PD place identity at the very center of the disorder (4, 5). That is, within these models, the degree of disturbed identity reflects the very severity of PD (6) and, along with other central self-other features, acts as a driver of PD (7).

Following McAdams (8), identity takes the form of a story. Narrative identity constitutes the dynamic and evolving life story. Storying serves to scaffold a sense of continuity between time and place, by integrating diachronic and idiosyncratic actions into a meaningful whole, and supports a sense of purpose and direction as life unfolds (9). Importantly, narrative identity does not evolve in a vacuum as a private, intrapsychic process, but within a dynamic, psychosocial ecology (10)—a narrative ecology (11). Identity is not solo-authored but a co-authored process influenced by several higher-order levels (12, 13). Bronfenbrenner's ecosystem (10) has typically been used to illuminate how a person's narrative identity is reciprocally an influencer of, and influenced by, stories from the person's inner circle (Micro-Level), stories between microsystems (Meso-Level), stories from peripheral platforms such as one's neighborhood, local policy, and Mass Media (Exo-Level), and, finally, by the overarching cultural, political, and religious master narratives [Macro-Level, see also (11)]. Recently, the Chrono-Level was added to account for the aspect of time: environmental changes, life transitions, and historical events (10). As such, narrative identity evolves within a complex and dynamic narrative web of near and more distal storytelling. Indisputably, the ecological narrative network has been helpful to demonstrate conjoint interactions between what is considered to be the typical narrative identity and its typical environment. However, a comprehensive narrative ecology has not yet been presented, elucidating how the atypical or maladaptive narrative identity is mutually constructed within an atypical narrative ecology. This is particularly relevant in the context of mental illness in general and in PD specifically, as PD is repeatedly linked with disturbed narrative identity (14, 15). In two recently published reviews (15, 16), I display how individuals suffering from PD construct narrative identities differently from individuals without such pathology within at least three overarching narrative identity domains; structural elements (i.e., how the narrative is organized—the overall architecture), motivational/affective themes (i.e., what drives the narrator and their emotional tone), and autobiographical reasoning (i.e., the underlying, reflective process) (17). To summarize the most consistent findings, PD has been linked with more fragmented and idiosyncratic narratives that are lower on agency

and communion fulfillment. The narratives are also predominantly negative (i.e., high on negative emotional tone and negative self-evaluations). Taken together, this work indicates PD is associated with several disturbances that traverse levels of the narrative ecology.

Consequently, with this Opinion I aim to encourage researchers to shift away from studying disturbed narrative identity and PD in isolation and, instead, place the disturbance in relation to its rightful narrative milieu reaching a more nuanced, contextualized view of problematic storying in PD (see Figure 1).

## The Micro-Meso Level in PD

> If I ever try having a conversation with my mom, about anything, she will always start talking about her own upbringing, how mean her father was and how her mother never cared about her and how she never mattered to them [...] She has always felt worthless [. . . ]. According to her, this is the reason why she wasn't able to be a good mother to me. Because she didn't have any experiences with or have learned how to be a good mother [. . . ]
>
> Young woman with Borderline PD (18).

The vast majority of extant research on narrative identity in general (13) and in PD specifically (15), has focused on personal narrative identity in isolation. A few studies have started to build the narrative identity ecology from the Micro-Level in PD (see Figure 1). Inspired by Thomsen and Pillemer's (13) concept and work on vicarious life stories (i.e., the knowledge individuals have about other people's life stories), I showed that 30 outpatients with borderline PD crafted their parents' narrative identities in a similar way as they crafted their own narrative identities (18): lower on agency and communion fulfillment, and with more negative emotional tone and negative reasoning. The parents' narrative identities were also less complex than the personal narrative identities and with more self-other confusion. These studies represent a premature, though important, step toward outlining disturbances within the microsystem of the narrative ecology in PD. The studies have generated crucial questions for the future. For example, are the narrative similarities best explained by parents implicitly and/or explicitly teaching their children less adaptive, narrative strategies on how to understand themselves and their lives? Considering the above quote, the daughter continuously heard her mother craft a highly gloomy story about her childhood and uses the story to explain why she was not able to be a better mother herself. The story, induced with negative meaning-making and thwarted agency/communion, may seep through to how the daughter comes to understand herself and the type of narrative style to adopt. Problematic storytelling at the Micro-Level should be taken seriously because, once established, they may be harder to change in therapy compared to personal narrative identities in PD (19). Yet, more research is warranted to conclude anything definitively about change and stability in vicarious life stories. In addition to collecting vicarious stories from individuals with PD, future research should also collect personal life stories and vicarious stories directly from parents and additional close others (e.g., siblings, stepparents, and close friends). This would offer a more comprehensive picture of the type of narrative identities fluctuating within the inner circle, how they influence the person's storying, and how the person with PD may be sustaining the maladaptive narrative milieu. The individual's developmental stage [Chrono-Level; (10)] should also be considered in terms of when and what Micro-Level stories are most influential to the individual. For example, adolescence constitutes a particularly sensitive period for developing PD (20) and it is also within this period a disturbed narrative identity begins taking shape (21, 22). Thus, focusing on the maladaptive narrative ecology seems highly relevant in adolescents at risk of developing PD. Friends are considered key attachment figures in this developmental period (20) and peer-stories should therefore be considered at the very forefront at the Micro-Level. For that reason, it may also be particularly helpful to incorporate professional peer workers matched on age within the treatment of adolescents with PD since they might be more open to these stories [see also (20)]. Peers' stories can serve as alternative, optimistic, and empowering stories to the dominating stories of emotional tumult, interpersonal failures, and thwarted mastery they encounter from other PD patients at the hospital.

From the Meso-level, it is also important to consider links between the stories fluctuating between the Micro-Level entities (see Figure 1). For example, to what extent are stories about the person manifesting PD compatible between family, friends, school, and the psychiatric department? How are the entities communicating (if at all), and what stories may be told about each other? Researchers and clinicians should gather sufficient information about dominating storytelling within and across these entities and look for any deviations that may serve as a counter-narratives and potentials for growth. Despite this being a time- and resource demanding process it will possibly paint a richer and more holistic narrative of the person with PD across multiple contexts aligning with other, more recently developed PD treatments (e.g., AMBIT) (24).

## The Exo-Macro Level in PD

> I think it is really hard to accept that this is how things are (...) It's not fun when meeting new people, and they ask what you do, and you have to tell them that you are on sick leave. It is incredibly hard with how society works, and having a personality disorder has been the very worst, I think, because people are like "wow" [. . . ]. I am enrolled in education and really only need to finish my bachelor thesis and just started again recently, but after a week I had to go back on sick leave and that sucks.
>
> Young woman with borderline PD (18).

The young woman raises several, central societal concerns related to PD. The quote reveals a sense of self-stigmatization as feeling alienated from friends and acquaintances (25). Her description of people's "wow" reaction to the diagnosis further amplifies that PD, in her eyes, does not fit well with Macro-Level norms and values of the "typically narrated person" in the "typically narrated life" [see also, (23)]. Repeatedly, research has

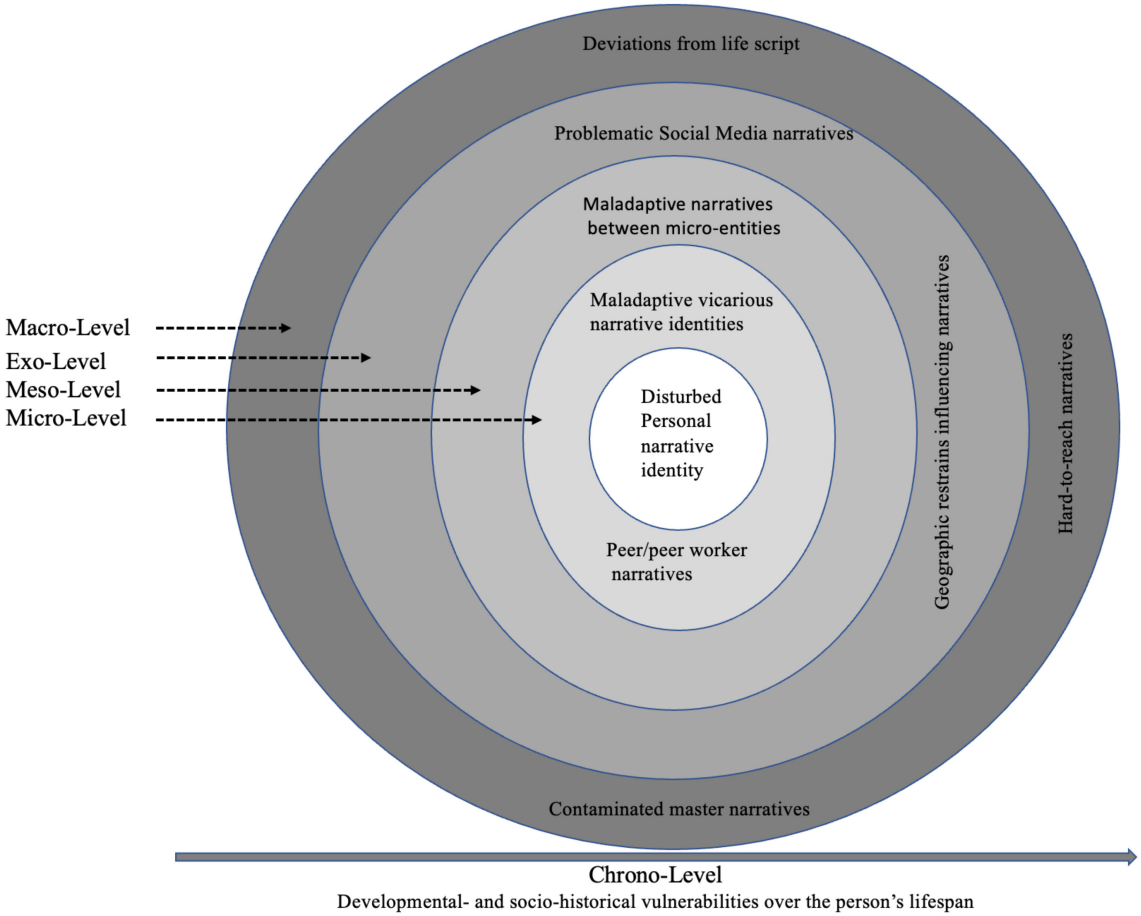


FIGURE 1
Visual illustration of the maladaptive narrative ecology in people manifesting PD.

shown that individuals follow a culturally endorsed life script as a template when organizing their own narrative identity (26) and other people's narrative identities (13). Not surprisingly, a PD diagnosis is not part of the life script, and difficulties related to a PD diagnosis may hinder accomplishing some of the scripted events such as completing an education, as mentioned in the quote [see also (23)]. The painful deviations from the life script may be intensified by deviations from other powerful master narratives. In western cultures, redemption is one such master narrative, in which negative or challenging beginnings are eventually redeemed, for example by crafting 'sickness to health' narratives (27, 28). A redemptive arc is seldomly related to the PD master narrative. On the contrary, clinicians have typically storied the diagnosis as "hard to reach," a narrative that has only slowly started to change (29). Laypeople know very little about PD compared to other mental disorders (30), increasing the likelihood of false narratives about the disorder. Instead, the overarching master narrative related to PD seems to be one of contamination (31) with the story going from neutral or tolerable to bad (see Figure 1).

Challenges are also prevalent in the Exo-Level (see Figure 1): geographic differences often determine the treatment resources offered to people manifesting PD (20, 32). In psychiatric wards with fewer resources (e.g., less qualified staff, inadequate treatment possibilities), maladaptive narratives about the place and the patients are likely to grow faster and stronger. Social Media also plays a central role in the shaping of personal narratives (33). People with PD can more or less actively follow websites, forums, and Instagrammers posting stories about living with PD. The type of Social Media the person with PD may decide to follow will inevitably shape their personal narrative identity. Online spaces like Facebook provides a virtual, illness-related forum in which people deviating from the Macro-Level norms can find normality within subgroups (34). Hinson and Sword (34) describe how such distal, online communities can contribute to agency and authority and a sense of gaining a voice among equal co-authors. From a Chrono-Level perspective, researchers and clinicians should be particularly aware of the types of narratives gained from Social Media in young people with PD spending a significant amount of time within these channels. While Social Media narratives may, for some, contribute to agency and authority, they may also color narrative identity in maladaptive ways—for example, by finding community in this place, estrangement from society at large may grow stronger. Possibly, the new narrative identity may be used to explain away difficulties as something caused by the PD diagnosis and outside the individual's own control (i.e., diminished agency). Indeed, unlike some other mental illnesses or marginalized cultural

identities, it may be more difficult to frame PD as a source of empowerment.

## Concluding remarks

In this Opinion, I have emphasized the importance of shifting away from studying narrative identity and PD as a private, intrapsychic process and, instead, place it within its maladaptive narrative ecology. I have flagged several types of problematic storytelling and offered suggestions on how to take the narrative milieu more into account. In future work, this, among others, means that narrative researchers should develop assessment that incorporates the different levels within the maladaptive narrative ecology. I am beyond excited to see this work unfold.

## Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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## 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.

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# Mentalizing the therapist – Therapist experiences with short-term mentalization-based therapy for borderline personality disorder: A qualitative study

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**Background:** Mentalization-Based Therapy (MBT) was originally developed as a structured psychotherapy approach developed to treat borderline personality disorder (BPD) lasting up to 18months in outpatient settings. However, a short-term (5months) MBT program has recently been developed. No studies have investigated how MBT therapists experience the shift towards conducting short-term MBT for BPD.

**Objective:** The objective of this study was to explore therapist experiences with conducting short-term MBT for outpatients with BPD in the Danish mental health services.

**Methods:** Semi-structured qualitative interviews were conducted with seven therapists about their experiences with short-term MBT after a one-year pilot phase. The interviews were verbatim transcribed and analyzed using thematic analysis.

**Results:** The following four major themes from the therapists' experiences with short-term MBT were found in the qualitative analysis: (1) *The longer the better*, (2) *Change processes can be intellectual or experiential*, (3) *Short-term therapy is hard work*, and (4) *Termination is more challenging in short-term MBT*.

**Conclusion:** Most therapists were overall reluctant towards changing from long-term to short-term MBT. These therapist experiences could inform implementation of short-term MBT in mental health settings in the future.

KEYWORDS

**short-term psychotherapy, mentalization-based therapy, borderline personality disorder, therapist experiences, treatment termination, thematic analysis**

## Introduction

Psychotherapy programs currently offered for patients with borderline personality disorder (BPD) are often lengthy and resource intensive (1, 2). However, a recent Cochrane review investigating the efficacy of psychotherapies for BPD explored possible differential effects of short versus long psychotherapy in a subgroup analysis and did not find any association between

treatment intensity and outcome (3). Since the results from this subgroup analysis are only indirect and should be interpreted with caution, the optimal treatment duration for patients with BPD still remains unclear (4). The length of the current psychotherapies available for BPD creates a barrier to their adoption in the current climate of rising health care costs (2), and outpatient clinics may see a need to implement short-term versions of the treatments usually offered.

Mentalization-based therapy (MBT) is an evidence-supported psychotherapy program for BPD, which was originally manualized as an 18-months program (5). MBT in this format has been shown to reduce self-harm, suicidality, and depression (3). However, a short-term MBT program for BPD has been implemented at the Outpatient Clinic for Personality Disorders at Stolpegaard Psychotherapy Centre in Gentofte, Denmark in a collaboration between the clinic and the research unit at the centre. Recently, a randomised clinical trial named The Short-Term MBT Project has been initiated comparing the effects of short-term (5 months) with long-term (14 months) MBT for outpatients with subthreshold or diagnosed borderline personality disorder (4).

## Mentalization-based therapy for borderline personality disorder

MBT is a psychodynamic psychotherapy, rooted in cognitive theory and attachment theory (5). It was developed specifically for patients with BPD and has shown to be effective compared with treatment as usual (3). Mentalization refers to the capacity to understand one's own and others' internal mental states. Patients with BPD are more vulnerable to lose their mentalizing capacity when experiencing emotional distress. The MBT manual offers therapeutic techniques to help bring the patient back into a mentalizing mode (6, 7). However, information about the processes that produce a change in MBT, or in psychotherapy in general, is still limited (8–11).

Even though MBT was originally manualized as long-term program, different durations of MBT are currently offered in outpatient settings around the world (6). In our experience, the idea that longer treatment durations are universally preferable for patients, especially those with more severe psychopathology (12), is pervasive among many therapists practicing MBT. However, the opposite perspective that long-term psychotherapy could be too overwhelming for patients with severe psychopathology, particularly for those with attachment insecurities, could also be prevalent among therapists. To our knowledge, these therapist attitudes have not yet been systematically explored.

## The therapist perspective

Adapting to a short-term version of an existing treatment may be a challenging process for therapists. Yet, no previous empirical research has focused on exploring therapist experiences with delivering short-term MBT, nor are we aware of any qualitative studies focusing directly on the influence of treatment duration on the therapist experience of delivering other types of short-term psychotherapy for BPD patients.

Patients with BPD are often highlighted as a patient group evoking strong emotional reactions in mental health professionals (13–17). Bateman and Fonagy (18) argue that BPD patients are the most difficult patients to treat due to their predominantly ambivalent attachment styles. As a result, therapeutic interventions with this group are often emotionally demanding for the therapist (19). Studies by Betan et al. (20) and Colli et al. (14) on the types of emotional responses evoked by patients with personality disorders found that patients with BPD often elicit strong therapist responses such as feeling helpless, inadequate, overwhelmed, and overinvolved. Reducing the length of the treatment may exacerbate or complicate the emotional responses of the therapist in a way which could potentially influence treatment outcome. Therapist expectancy of treatment outcome is less researched compared to patient expectancy (21, 22). However, these phenomena may be interrelated; e.g. a therapist with a particular response expectancy may consciously or unconsciously communicate this to the patient during treatment, which may ultimately result in a particular patient response expectancy that becomes self-confirming, and thus influences the patient outcome (23).

During the implementation phase of the short-term MBT program at Stolpegaard Psychotherapy Centre, treatment duration seemed to influence the trial therapists' experiences of the treatment, as highlighted in staff meetings and clinical vitiation meetings. Therefore, the purpose of this study was to examine the therapist perspective related to changing from a long-term to short-term MBT program for the treatment of outpatients with BPD, in order to gain a deeper understanding of the factors that influence the therapists' experiences with short-term MBT.

To our knowledge, this is the first empirical study assessing the therapist perspective not only on short-term MBT but also on short-term psychotherapy for patients with BPD more generally. Thus, it appears that while most research and clinical experiences indicate that psychotherapy for BPD can be very challenging for the therapist, we do not yet have empirical evidence on the therapist experience of delivering short-term MBT. This study aims to close this empirical gap in knowledge.

## Aims

This study will provide an in-depth exploration of therapists' experiences with short-term MBT for patients with BPD. The objectives of the present study were to investigate the following research questions:

- Do therapists experience any challenges specific to short-term MBT?
- Do therapists expect different treatment effects of short-term compared to long-term MBT?
- How can short-term MBT be improved, according to therapists?

# Methods

This study is reported according to the Standards for Reporting Qualitative Research (SRQR) guideline (24).

## Design

Semi-structured qualitative interviews were conducted with MBT therapists exploring their experiences with delivering short-term MBT to outpatients with BPD. All interviews were verbatim transcribed and analysed using thematic analysis.

## Context

This study was conducted at the Outpatient Clinic for Personality Disorders at Stolpegaard Psychotherapy Centre, Mental Health Services in the Capital Region of Denmark from March to October, 2018. At the time of data collection in the present study, a 1-year pilot phase of the Short-Term MBT Project (4) had recently ended, and enrolment to the trial had commenced. During the pilot phase, all trial therapists at the clinic received training in the short-term MBT program by trial investigators as well as national and international MBT specialists. All participants had finalized 1–2 short-term MBT groups before the time of the interviews.

### Sampling strategy

All clinicians ($n = 7$) who had been working with short-term MBT for outpatient with BPD during the pilot phase of the MBT-RCT trial were invited to participate in this study, and all of them consented to participate and provided written informed consent.

### Participants

Participants in this study were seven psychotherapists working at the Outpatient Clinic for Personality Disorders at Stolpegaard Psychotherapy Centre. The seven therapists were experienced in both short-term and long-term MBT. Demographic information about the participants can be found in Table 1.

### Interventions

The long-term (14-month) version of MBT has been implemented at the outpatient clinic for the past 10 years. The short-term (20 weeks) MBT program is overall similar to the existing long-term program, but differs structurally in the following three ways: (1) The short-term program is lower in treatment intensity (both duration and exposure), (2) the same therapists provide both group and individual sessions in the short-term program (conjoined psychotherapy), such that each of the two therapists have half of the group participants in individual therapy alongside the group sessions, whereas the group therapy and individual therapy are provided by different therapists in the long-term program (combined psychotherapy), and (3) the short-term program is structured in closed groups, in which all patients start and finish the program together, whereas the long-term program is structured as slow-open groups, in which a new patient can enter a group when another finishes (4). Seven to nine patients are included in each group in both short-term and long-term MBT. The role of the therapists in the group is to facilitate a mentalizing dialogue. If patients shift to a non-mentalizing stance, then the therapists should aim to identify this shift and bring the patient back into a mentalizing stance.

TABLE 1 Demographic information about the study participants.

| Demographic characteristics of study participants ($n$ =7) | |
|---|---|
| Age, mean (SD), years | 50,8 (14,7) |
| Years of work in the field, mean (SD) | 18,3 (14,4) |
| Years of MBT experience, mean (SD) | 6,7 (2,7) |
| Educational background | |
| Psychologist | 4 |
| Psychiatrist | 1 |
| Social worker | 1 |
| Physical therapist | 1 |

### Data collection methods, instruments, and technologies

All interviews were conducted in person. The interviewer (ASS) held a B. Sc., in Psychology and was trained in qualitative research. A predeveloped interview guide, based on the research questions stated under *Aims*, was used for all seven interviews, but as the interviews were semi-structured, additional questions asked by the interviewer varied according to what came up in the conversation with each participant. All interviews were audiorecorded. NVivo version 12 was used for coding of the themes (25).

### Ethics statement

All the participants received thorough information about the purpose of the study and were informed that they could withdraw their consent at any time. The names of the participants have been changed in the article to protect their anonymity.

### Qualitative data processing and analysis

To explore the therapists' experiences and attitudes to short-term MBT, the interviews were analyzed using thematic analysis (26). This method has also recently been used in a qualitative analysis of patients' experiences with MBT (27). The analysis was conducted based on a hermeneutic epistemological framework. We used Nvivo software for the analysis (28).

Hermeneutics can be described as a theory of interpretation, and the hermeneutic interpretative process is dynamic and non-linear. In the process of understanding a text in a hermeneutic way, comprehension of the parts and the whole can never happen without reference to the other (29). The hermeneutic aspect of this study also entails using reflexivity actively as a tool in the analysis (30). We were aware that our assumptions as researchers could influence the findings of the study. Before analyzing the material we did not know which assumptions would be relevant. Therefore, we strove to stay reflexive and be aware of the effects of any potential preconceptions throughout the process of conducting this study (31).

The aim of thematic analysis is to identify and interpret key features of the data (32). We followed the six phases of thematic analysis proposed by Braun and Clarke (26): (1) transcribing the interview, (2) initial coding of the data, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing a report. In accordance with the dynamic and circular

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nature of the hermeneutic interpretive process, these steps were not sequential. In accordance with the hermeneutic epistemology, the analysis began at the same time as a verbatim transcription of the interviews commenced. Already at this stage, preliminary codes were formed based on notes made during transcription. Additional codes were gradually added throughout the analysis. Parallel to coding and adding new codes, condensation of the themes also began, entailing a constant "dialogue" between the themes, the transcripts and the study aims as well as critical reflection on our own expectations throughout the process. This process of coding and condensation of the themes was repeated as many times as needed until the final themes were reached, and the analysis no longer uncovered significant new material and a satisfying level of meaning saturation was reached for the purpose of answering the study aims.

### Researcher roles, characteristics, and reflexivity

AAS participated in this study as a research assistant employed in the research unit at Stolpegaard Psychotherapy Centre but was not involved in the clinical work at the Outpatient Clinic for Personality Disorders, nor was involved in the development and implementation of short-term MBT at the clinic. Thus, the interviewer had no power or authority over the participants. SJ and SS are lead investigators of the MBT-RCT trial and were responsible for the overall design and implementation of the short-term MBT program at the clinic. SJ and SS were kept blind to the interview transcripts throughout the study. SP participated as an external academic advisor and was also blind to the interview transcripts.

AAS drafted the interview guide with ongoing supervision from SJ, SS, and SP. AAS performed all the interviews to ensure that the participants could talk more freely, since they did not have a personal relationship nor had been working with AAS in the pilot phase of the MBT-RCT trial. AAS verbatim transcribed all the interviews and performed the initial coding of data (phases 1 and two of thematic analysis as described above). Searching for themes, reviewing themes, defining, and naming themes (phases 3–5) were done in a collaboration between AAS, SJ, and SS on the blinded data. All researchers participated in producing the report (phase 6).

Since SJ and SS were involved in the design and implementation of short-term MBT program, they potentially had allegiance to this program, which could influence the research. However, particularly SS have also been working with the original long-term MBT program for many years. SJ and SS were mindful about how their role could influence the results throughout the data analysis phase. We all worked with our own preunderstandings and theoretical approaches through reflexive dialogue in the research group as well as a "dialogue" with the perspectives presented in the blinded interview transcripts.

## Results

The thematic analysis revealed four major themes: (1) *The longer the better*, (2) *Change processes can be intellectual or experiential*, (3) *Short-term therapy is hard work*, and (4) *Termination is more challenging in short-term therapy*.

### The longer the better

Several of the therapists express a conviction that the longer the patients' issues have been present and/or the more fundamental and deep-rooted they are, the longer therapy is needed to create appreciable positive change for the patient. This is illustrated here by Susanne, who contends that the more widespread the patients' problems are, the more difficult she finds it to get a good grasp of them in the short-term groups:

> Some of the patients have problems so complex that it's impossible to catch up with in such short-term groups.

Another therapist, Tina, also describes an experience with a short-term group where the allotted time ended up feeling too short for the subgroup of patients with more long-lasting problems:

> Maybe it's something you've done for a long time, and then it can be hard to do something else in just five months.

Karen demonstrates how the belief that long-lasting problems require longer-lasting therapy informed her initial resistance to short-term therapy:

> I was affected by my own ideas of "okay, when they've had these issues for so many years, then how are we supposed to change them in five months" and things like that.

Particularly, personality change is believed by the therapists to require longer treatment. Louise presents the view that short-term therapy is mainly effective for concrete, more delimited problems:

> I'm thinking that short-term therapy maybe works well for more well-defined and circumscribed problems. I mean, we know that it can reduce self-harm and suicidal risk and other very concrete goals. But I don't know how much change in personality structures short-term therapy can bring along, I mean, if it can bring along just as much as long-term therapy. […] I think some of the more fundamental issues, like attachment trauma, are going to be really difficult to change in short-term therapy. […] Like, the more underlying attachment, I think that takes a bit longer.

Several of the therapists echo the view that patients with severe attachment-related problems need long-term therapy in order to change their underlying attachment patterns. Tina's experience is that for some patients, short-term therapy will never be enough. When asked if she had an idea of which specific patients, this would be true for, she responds:

> It's probably the ones with several severe borderline traits, maybe, and with attachment-related trauma. I think so.

There is not complete consensus on this view though, as Susanne presents the opposite opinion saying that short-term therapy can be especially beneficial for patients with insecure attachments:

> The advantage is that they don't develop this dependence, which we see in some of the long-term groups, that we have to work very deliberately to dismantle.

Only one therapist, Maria, describes herself as being more in favor of the length of the short-term therapy in a broad sense. In her experience, the patients in her short-term groups actually have appeared to change on a deeper level:

> I've seen that we've actually been successful in changing some personality-related and relationally completely fundamental things […] and then I've just been thinking, if you can get to that point in just half the time, then there's no reason for giving them a year.

When asked about what they would change to improve the short-term group therapy, several therapists immediately consider prolonging the duration of the treatment, as this response by Peter illustrates:

> I don't know. I think it's hard to say. I mean, that would be something like making it longer, but I don't think that's a meaningful response […] That's not my opinion at least, that it would be unambiguously better to make the therapy longer. Although, if I had to pursue that idea, I'm inclined to wonder if 15 sessions in the MBT-G part [the group therapy minus the introductory module in the beginning] is maybe a little too short?

Michael, who otherwise expresses being an avid supporter of the short-term version of MBT, joins in on this tendency:

> If you look at it from a more general perspective, then I think maybe you should make it a little longer. That's my view. I mean, not necessarily that much more. But it's just very quickly in and out, and maybe that's just a few months too fast. But it's a matter of taste. […] If I had to rethink it, I think I would have said three quarters of a year or something like that […] but I don't have a lot to base it on, other than that sense that it actually goes by really fast.

Peter – one of the therapists who suggested prolonging the short-term treatment to a duration somewhere in between the two treatment programs – subsequently reflects on why his own experience with long-term treatment seems to be more positive:

> I wonder if the long-term treatment is maybe also better, because it simply increases the chances of relevant interpersonal events happening to the patient that the patient can work with in the group […] There's also some degree of coincidence at play in relation to what happens in these groups and in the patients' lives, and I've sometimes wondered, if the progress we see with some patients isn't necessarily because they've been here for eight months, but is just as much a coincidence, because we just stumbled upon a problem.

His suggestion seems to be that the advantage of longer-lasting therapy may in some cases merely be due to an increased probability for relevant material appearing in the groups as a result of a prolonged timespan.

## Change processes can be intellectual or experiential

This theme concerns the therapists' experiences with the different types of change processes they have been a part of in their short-term compared to long-term group therapies.

Several of the therapists shares a perception that the therapeutic change with short-term patients is more superficial compared to the more stabilized and embodied transformations they have witnessed with their long-term patients. Michael expands on this distinction by describing the change processes he has seen his short-term patients go through:

> For many, the treatment outcome will probably be more on the verbalized level than on an experiential level. I mean, it's going very fast and you quickly learn some words and concepts, and I think that many of them understand "oh, so now we are in really high arousal, hold on a minute, let's see what's happening here". I think they quickly catch on to that, but internalizing an experienced emotion, I think that can be hard for some of them. So in a way I think it can be a bit more superficial and intellectualizing – "oh that was pseudo-mentalizing" more than something like "oh now I have experienced that it is possible to deal with these feeling many times, therefore I have a different feeling in my stomach".

Later in the interview, Michael compares the effect of short-term therapy to that of a good seminar; useful and beneficial for some patients, but not as internalized or in-depth regarding psychological function as the effect of the long-term therapy may be. Louise provides a useful example to illustrate the point of deep vs. superficial change when describing a specific patient's case:

> She also has this experience of having this monster inside of her that is dangerous. And then I start to doubt if we'll be able to change that; if we are giving her the opportunity to say "You can control this monster" or if we can actually go in and say "You *are* not a monster inside" […] My immediate experience is that short-term therapy can help you handle the monster; how you can deal with it when you feel it emerging, how you can avoid it, but long-term therapy – is my theory – can create the change that makes you start to doubt whether you even have a monster inside of you.

Louise also elaborates on the idea that the experiential part of the therapeutic process may be lagging behind in the short-term groups due to the more limited time for building a therapeutic alliance and working with the relationship between the therapist and the patient:

> How fundamental are the things we change? Do they achieve the trust that you are there for them and that we are able to work with this and make mistakes and repair it again, and for them to be able to then forgive you? I think reparation is a big part of MBT and of course we have a little shorter time for that now.

According to Michael, not only the relationship between the therapist and patient, but also the relationships between the different patients in the group can be of significance for the change processes taking place in the therapy:

> If you get really close to each other, then the conflicts are sure to arise […] so in that way the conflict material internally in the group, which can be really meaningful to work with, has maybe been less pronounced [in the short term groups].

Louise describes a case where the two therapists in a short-term group decided to prolong one patient's treatment in order to cement the change in his thinking, which had happened during the course of the therapy, but which they still deemed fragile at the time of termination of the initial treatment. In relation to this practice, Tina advocates for the possibility of prolonging therapy in some cases, and asserts that while concrete changes may happen in the short-term treatment, the stabilization, which she thinks only long-term treatment provides, can be more beneficial in the long run:

> For some patients it just takes longer, and maybe they will get something out of it in six months – but staying in the group and having it stabilized and feeling that they're actually working with it and being in it in another way, before we terminate? I think that means something to them later on.

This can be seen as an expression of the attitude that therapy should create change on the more experiential level, since stabilization or consolidation are mentioned as necessary requirements for a proper and justifiable termination.

## Short-term therapy is hard work

Regardless of their opinions on short-term therapy in terms of treatment effect, all the therapists seem to agree that short-term therapy at least to some extent demands more of them as therapists than the long-term therapy. One thing that differs among them is whether they perceive this to be a mostly positive or negative thing.

Susanne believes the beginning of the group therapy, when building the therapeutic relationship as well as a fruitful group culture and coherence, is more burdensome in short-term therapy. Louise presents a view of a somewhat inflexible process that extends all the way through the short-term therapy:

> For me, the short-term groups are actually more challenging, because it's more demanding when it comes to the preparation for the groups and being more focused on the goals we are working towards. In the short-term groups, it's not really possible to revise the goals in the same way. So, if it comes to our attention after 10 sessions that we need to work with another issue, then there isn't much time left to work with that. So that whole thing of being more focused, that's a new way for me to work.

The therapists also describe how the increased flow of patients, made possible by short-term groups, can be a challenge, especially because of the emotionally draining nature of relational work. This makes the increased number of patients that each therapist is responsible for a challenging feat. This point is exemplified here by Louise:

> This work is very strenuous on an emotional level, and it affects me that I now have to become attached to and relate to more patients than if I had long-term groups. […] I think it's harder to become attached to the patient, and even just remember the patient, and get to that place where you have a relationship, because you don't have the same time. I find it hard to get attached to the patients that fast.

Tina elaborates on what exactly constitutes the added workload:

> I think it's challenging to start up with four new patients at the same time. It takes a lot to establish that alliance and security and a good relationship. The practicality of writing four case formulations, and being well-prepared while establishing a mentalizing culture from the beginning, and being very focused on what it is we're doing.

When discussing the challenges of becoming a short-term therapist, Peter contemplates if the extra time pressure, he and many other therapists experience in the short-term groups, may possibly have a positive element to it:

> My experience is that it's more straining to have a short-term group, partly because of the time element, which somehow brings about a feeling of being more in a hurry and having to be more focused – and maybe that's a good thing, I suppose. […] If I think about it, the first time I have a long-term patient compared to a short-term patient, I think, figuratively, that I can lean back more when sitting with a long-term patient. I think I feel compelled to be a little more active with the short-term patient. And I don't know which of the two is best. But it feels more like a pressure and more stressful, and it can be a bit heavy. On the other hand, maybe it can be an advantage because you hold yourself to it and you get stuff done.

Michael puts it more concisely:

> You don't just sit there and lean back and wait for things to happen on their own like there perhaps is a tendency to do in the longer therapies […] I think I have been more active as a therapist in the short-term groups. Time is sparse, and I'll be damned if we don't get something out of this, you know.

Together, Peter and Michael's points seems to be that a therapist who is pushed slightly by having to work within a shorter time frame may become more focused and goal-oriented, which could ultimately make for better therapists. Perhaps an added sense of accountability follows, when a predetermined date of termination lies within a more foreseeable future. This may be beneficial, providing it does not result in an insecure or stressful working environment for the therapist.

## Termination is more challenging in short-term therapy

With shorter treatment durations comes an added number of groups and as a result more endings for the therapist. It is therefore perhaps not surprising that termination emerges as one of the major themes in the therapists' accounts of their experiences with this new treatment form. Most of the therapists, when asked if they experience any specific challenges related to conducting short-term therapy, bring up difficulties regarding termination. While the majority recognize that termination can be hard in all types of therapy, most of them stress that termination feels particularly challenging when it comes to short-term therapy. For Karen, termination is largely the same process in both short-term and long-term groups, but it perhaps takes up more space in the short-term groups. She adds:

> Well, you can say that the termination phase approaches faster. You know, if it's five months of treatment, sometimes even after four months, they already start to think that it's about to end. But the process is kind of the same. It's the same themes. […] It's the same things we have to go through about looking back, or the difficulties with saying goodbye and the insecurity of having to stand on your own two feet.

Peter finds termination to be more difficult in short-term groups and in relation to this highlights the emotional challenges related to termination:

> It's evident that termination in short-term therapy *is* more challenging. And again, it's hard to say how much is our own, and how much is the patient's, but emotionally there is more at stake by ending therapy after five months.

The therapists have found different ways to deal with the struggles with terminating therapy especially present in the short-term program. Some therapists, like Susanne, have appreciated the possibility in the pilot phase of the trial of being able to prolong the therapy, effectively transforming it from short-term to long-term therapy and thereby postponing the most difficult of the endings. Maria stuck to the amount of sessions prescribed by the short-term therapy program, but instead spread out the three follow-up sessions over a longer period of time to be able to follow the patients for longer, adding:

> I would find it hard if I didn't have these follow-up sessions. Then I would think it's very abrupt. Yeah, and I wonder what that's about?

After the RCT has commenced, preventing the therapists from prolonging treatment, others, like Karen, have used the practice of referring the patients to another treatment for comorbid disorders to avoid the discomfort of feeling like she is leaving the patients on their own. The therapists who make use of these strategies all describe a feeling of safety in knowing that they have done all they can and that the patient will not be left completely alone, feeling forsaken by the therapist. Michael describes how he has also struggled with terminating short-term therapy in a satisfactory way, but has found it important to stick to the principle of ending it when it's time to end:

> The challenge is also to conclude the therapy with the patients in a way where they actually feel done, right. […] So, in a way it says something about an experience for the short-term patients of having some remaining issues, which are making them push for extension. You have to be more on top of things as a therapist and say "this is the end" than you do in the long-term groups […] and then of course you have to be able to resist that pressure with your own emotions and rationality and look at what the cause of it is.

This principle might be especially imperative in cases where the patient has issues with dependency, as Maria points out:

> It's possible that we have some patients who almost become a little dependent on this place, that it becomes the only place they have […] where they forget to take part in the world outside, but instead just go from therapy to therapy. So that's a risk with long-term therapy; creating that dependence. You don't do that in the same way with the short-term groups, because it's so clear to them when to stop.

Tina shares this understanding with Maria and remembers a patient of hers, who expressed that short-term therapy was the right choice for her because of her dependent traits and struggles with dependency in the past:

> She said that she was very worried about the duration, when she started, and in the end she said "I think it's good that it wasn't longer" because then she would have become too attached to the treatment, and then stopping would have been too hard.

In line with this, Peter points out that patients' negative reactions to termination may not necessarily require any action from the therapist, since these reactions are often rooted in the patient's underlying dependent personality structures or may, alternatively, merely be a natural reaction to something positive ending:

> I think it speaks to some sort of dependency that, you know: "Someone has begun to help me and listen to me, and it's been so nice, so it's hard that no one is going to be doing that anymore". That is very understandable, but not necessarily an argument for more therapy, in my opinion.

The habit of prolonging the therapy for patients in short-term groups (assigning them to another short-term group after termination or letting them transfer to a long-term group) during the pilot phase of the RCT might be indicative of the therapists' resistance to termination and perhaps to short-term therapy as well. While a few of

the therapists have appreciated having the opportunity to do so, looking back, most feel that this practice has actually been less than beneficial for the patients, as Tina describes:

> I think one out of the five times has been a good idea, in retrospect. For the remaining three to four it was, like, a very concrete solution to something that was hard for both the patients and the therapists to bear: Ending the therapy […] you couldn't bear being in that feeling with the patient, or you think that you're meeting them where they're at, but it wasn't actually what they needed after all.

In a candid remark, Peter also reflects on what is likely to motivate therapists to prolong therapy in some cases:

> It's not that we can necessarily say that they've improved more after a year – or at least not just because it's a year – but because we can say with greater peace of mind: "Now we have tried for a whole year, and we have come as far as we can". So, it's not necessarily because they have progressed more, but because you yourself can end it feeling calmer. Because I think the termination is a lot about what we as therapists think is hard. I think this makes it easier for us.

However, the theme of termination is not only present in short-term therapy, but in long-term groups as well. Louise brings nuance to the matter by suggesting that the separation anxiety experienced by some patients might rather be related to the patients' symptomatology and have less to do with therapy duration:

> Some of the really ill patients I've seen can be in groups that last a year and a half, and be desperate already in the beginning, thinking about the therapy ending.

Nevertheless, Louise adds that she feels more "done" when terminating therapy with patients at the end of the long-term compared to the short-term groups.

As presented under the theme *Short-term therapy is hard work*, the therapists seem to consider short-term therapy more difficult than long-term therapy. Based on the findings from this theme it seems that issues related to termination might be a factor in this. However, rather than termination difficulties, Karen highlights the effect of having to embark on new therapeutic relationships more often than the therapists are used to:

> You don't get many weeks before it's time to start terminating the therapy, and that can be rough. But I almost feel like hellos are harder than goodbyes in some way. I think building a good alliance, a good relationship requires a lot.

With this comment, she seems to suggest that while she experiences short-term therapy as harder for her as a therapist, this may be an effect of the added number of beginnings, where the relationship needs to be established, and less due to the issue of termination. Karen also highlights a possible positive effect of a nearer, fixed termination date that feels more imminent than in long-term therapy:

> You can't know if that thing of "it's ending now, I should probably get to it" if that can be a motivator. I don't know.

While most therapists agree that the termination theme was more prevalent in short-term therapy, a few of them also point out that there are challenges in relation to all endings of psychotherapy regardless of the duration, and one could speculate if the same attitudes would occur even if the termination date was pushed a few months.

When discussing the theme of termination, the topic of how much therapy is enough becomes pertinent. In order to know when it is acceptable to end the therapy, the therapists must be clear on what the therapy goals were, and if these have been satisfactorily met. The therapists have somewhat differing opinions on when therapy is terminable. Some seem to carry the conviction that the patients should preferably be completely ready to end, satisfied with the therapy, or perhaps even free of their symptoms, while others believe in an ongoing therapeutic development continuing after the therapy itself is over. Peter unfolds his own uncertainties with the issue of when it is reasonable to terminate therapy:

> I can almost hear a patient saying: "Sure, I've gotten better, but there is still all this stuff I'm dealing with". Something, which is hard when it comes to termination, is that it can become a bit vague and unclear where exactly we are supposed to bring them to. For example, is it a success criterion – and I think it is – that they self-harm less? But we have some patients who become less self-harming, but are still quite dysregulated emotionally, now they just have better ways to handle it, and it happens a little less, but is that the point we need to get to, or do we need to get even further?

The question of therapeutic sufficiency is connected to the theme *Change processes can be intellectual or experiential*, because it deals with the issue of which type of psychological or behavioural change is needed in order to consider the patients mentally well enough to terminate therapy. Is intellectual change sufficient – maybe because you expect that further progress will happen after the end of therapy – or should the change be experiential and stabilised for termination to be warranted? Some therapists state that they experience a greater stabilization of the therapeutic progress in long-term therapy, not to mention a greater acceptance of the termination by the patients, which they often do not see in short-term therapy. This is exemplified by the following statement by Tina:

> It think that it generally means a lot to them in the long run that they don't feel like they are being turned away too soon, but that they feel escorted somehow, and that these new things land in them, so they feel like "Okay, now, this feels fine", and are sort of satiated.

Peter expresses some doubts as to whether the assumption of continued progress post-therapy is well-founded enough to defend a perhaps early termination:

> We say to the short-term patients: "Here you have the opportunity to train your mentalization, and the idea is that if you get better at this and start working with it and become aware of what it means to mentalize and that it is something you have to practice, then

> you can always get better at it after you are no longer in therapy." […] I've heard people say that in the context of many other therapies as well, and on one hand it makes a lot of sense. But I also think: How well do we really know that?

Maria presents the view that the difference in termination-related challenges in the two groups may be driven not only by the difference in duration, but also by the format of the therapy. She suggests that patients in the so-called slow-open groups may benefit from the way the group is structured, which makes it easier to terminate therapy, and she compares the effect to a life maturation process:

> A sort of natural maturation happens […] If you start out as the new person in the group and at some point end up being the old one in the group, and new people join and such, and all your buddies have left … I mean it's almost like a life maturation, you know, when you grow old and all your friends die and you sit there with people 30 years younger than you in a completely different place in life, then maybe you become more ready to leave.

It thus seems that the prerequisite of termination is not only getting to a place where the patients are "fully treated" or void of all symptoms of mental illness. Rather, several other different variables, such as the type of patient, the type of group and the prospective of further development after therapy can make both the therapists and the patients feel more ready for the therapy to end.

## Summary of the findings

The therapists reveal that their preference for long-term therapy may both concern the well-being of the patients as well as their own work life, the emotional challenges related to being a therapist and perhaps, in some cases, countertransference reactions. To illustrate this, the four themes can be divided into two overarching considerations: (1) The therapists' ideas of treatment processes and effectiveness for the patients, and (2) The therapists' personal and professional challenges (Figure 1).

# Discussion

In the present study, we interviewed seven MBT therapists using semi-structured interviews about their experience with delivering short-term MBT for outpatients with BPD and about their experiences of changing from long-term to short-term MBT. Seven therapists provided informed consent and participated in this study. The interviews were verbatim transcribed and analysed using thematic analysis. The results suggest that therapists seem to have some reservations toward the short-term MBT program, which are expressed in differing ways. The following four major themes from the therapists' experiences with short-term MBT were found in the qualitative analysis: (1) *The longer the better*, (2) *Change processes can be intellectual or experiential*, (3) *Short-term therapy is hard work*, and (4) *Termination is more challenging in short-term MBT*. Some therapists also pointed to potential advantages of delivering short-term MBT. While highlighting that short-term MBT is hard work, some also mentioned a tendency of becoming more structured and deliberate in their psychotherapy practice.

As presented in the theme ***The longer the better***, the idea that chronic and/or more severe mental disorders such as personality disorders require long-term therapy is prevalent among the therapists. The therapists' arguments for the superiority of long-term psychotherapy often include the anxious and ambivalent quality of the patients' attachment patterns as well as the severity of their psychiatric symptoms. However, a study by Arnevik et al. (33) suggests that the patients with the most severe disorders are not necessarily the ones benefitting from higher treatment doses, as they find no additional

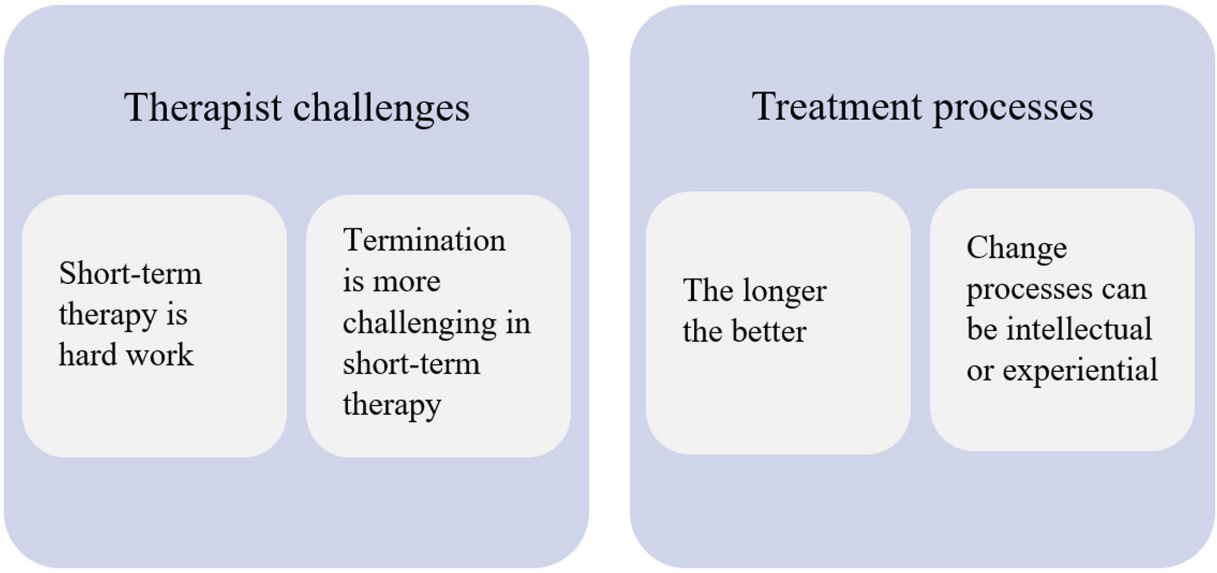


FIGURE 1
Therapist attitudes to short-term MBT illustrated by four themes and their relation to two overarching themes.

benefit of the more extensive treatment in terms of change at 18 months' follow-up. However, in a subsample analysis of patients with BPD from the same study, Antonsen et al. (34) found that this group of patients benefitted more from higher treatment doses at the 6-year follow-up. Yet, one should be careful with drawing conclusions based on subgroup analyses, which should be seen as observational by nature and thus mainly hypothesis generating (35). Whether patients with more severe personality pathology (or psychopathology in general) need longer treatment is still unknown (36). A randomized clinical trial assessing the effects of six versus 12 months of dialectical behavioral therapy (DBT) for BPD patients was recently published (37) in which it was concluded, that short-term DBT was non-inferior to long-term DBT when assessing the primary outcome, total self-harm, as well as other secondary outcomes. Hence, whether this could be true for MBT as well is still unknown.

In the interviews, the therapists express their views on which change processes are most beneficial for the patients. As presented in the theme ***Change processes can be intellectual or experiential***, the general consensus among the therapists seem to be that experiential (as opposed to intellectual) change is preferable, while some therapists are also quite transparent about their own uncertainty about mechanisms of change and optimal treatment goals. The convictions held by the therapists appear reminiscent of the psychoanalytic roots of MBT. Psychoanalysis is known as a quite time-consuming type of psychotherapy compared to most other modern psychotherapies, with durations of several years of high-intensity therapy. Freud's belief was that attempts at mere symptom extinction was far too superficial (38, 39). Instead, he likened analysis to surgery seeking to remove the problem rather than merely covering it up and posited that treatment is not finished until all obscurities are cleared up, the gaps in the patient's memory filled in, and the precipitating causes of the repressions discovered (40). In MBT the goal of the treatment is another than that of Freud's. The group is described as a training ground for interpersonal mentalizing with a focus on common problem areas (6). The descriptions of experiential change by some therapists in the interviews seem to correspond quite well with the term "training ground."

Recent MBT literature presents a greater focus on epistemic trust in contrast to the pronounced focus on the attachment system in the understanding of mechanisms of change in previous times (41, 42). Luyten et al. (12) links epistemic trust to treatment duration by suggesting that patients with less epistemic trust require longer treatment in order to first stimulate trust and openness. Similarly, Bach and Simonsen (43) link lack of epistemic trust to higher severity of PD. However, the therapists in this study do not appear to use epistemic trust as a rationale for their preference for experiential change or longer treatment as their focus is more on the quality of the patients' attachment as well as symptom severity. While attachment and epistemic trust are closely related concepts, there are important differences between placing primary importance on the emotional aspect or the learning component as a therapist (42). The therapists' focus on attachment patterns and emotional processes, and what seems to be a perception of their role as having to embody a corrective emotional experience can perhaps explain why they find short-term MBT more difficult.

Another major part of the therapists' preference for long-term MBT seems to stem from the experience that short-term MBT is more challenging, as evident in the theme ***Short-term therapy is hard work***. Here, it is important to add, that the therapists' replies in the interviews are also shaped by the questions asked by the interviewer. One of the last questions in the interview invited for a discussion of the challenges in the therapists' work life. All the therapists had, however, touched upon the topic before the question was raised, indicating that the theme is highly significant to the therapists.

Even therapists, who on the manifest level indicate that they believe short-term MBT has the potential to be as effective as long-term MBT, still express finding their role in short-term MBT more difficult. Perhaps a part of the explanation for why switching from long-term to short-term MBT seems so challenging for the therapists can be found in the therapist stance. Fonagy et al. (44) describe the MBT group leader as an authoritative and overtly mentalizing participant of the group, implying an active and processual stance. Bateman and Fonagy (6) describe the group therapist's role as a hybrid between a floor manager and a dinner party host. In discordance with this idea of the therapist as a process facilitator, the therapists in the present study seem to personalize their role to a higher degree than prescribed by MBT literature (45, 46). Perhaps the high degree of personal involvement apparent in the interviews contributes to the therapists experiencing their role as rather emotional draining. While this may be the case for both the short-term and the long-term MBT programs, one could speculate that the therapists' involvement with short-term patients is greater because their faith in the effect of this treatment is lower, causing them to attempt to compensate for a treatment frame which they find inadequate.

Perhaps some of the therapists' struggles can also, at least partially, be attributed to the fact that the interviews were conducted during the implementation phase of The Short-Term MBT Project (4). The therapists in the study were accustomed to working with long-term MBT and some of them had done so for several years. It is possible that the therapists were struggling to find their footing when adapting to a shorter treatment frame. One could also consider if working with the same therapy structure for a long time may cause some therapists to become more governed by routines and perhaps more passive. One could speculate that the therapists would be less reluctant towards short-term MBT, if they had been practicing it for a longer period of time before this study. On the positive side, it is possible that the mere novelty of short-term MBT has the effect of activating the therapists in a new way. The challenge of changing habits may result in the therapists reflecting more on their role and being more deliberate in their practice, which is known to benefit patients (47). This could be part of an explanation for some of the positive effects of the new short-term MBT as highlighted by the therapists.

It appears that another part of the explanation for the experience of short-term groups as difficult can be found in the added number of terminations for the individual therapist. Terminating psychotherapy is a notoriously demanding part of practicing psychotherapy, as termination is a challenging process of individuation and separation, which involves a multitude of ethical and therapeutic issues (48–50). This is evident in the theme ***Termination is more challenging in short-term therapy***. The short-term groups have resulted in a higher turnover of patients and, accordingly, a higher frequency of terminations, which perhaps contributes to a sense that termination is a more prevalent focus in short-term therapy and possibly result in a more emotionally draining work life for the therapists. According to Bateman and Fonagy (6), one of the goals of the final phase in MBT is to increase responsibility and independent functioning. The final phase in the original 18-month MBT does, however, begin when there is still 6 months of treatment left (6). The directions presented in the

MBT manual are therefore not immediately transferable, since the time available for working through termination-related challenges in this original model is far from comparable to short-term MBT.

Juul et al. (51) describe a mentalization-based approach to the challenges of terminating a therapeutic relationship with patients suffering from BPD and propose that termination challenges can often be partially attributed to therapists' own conflicts associated with ending the therapeutic relationship. Different emotional responses and countertransference reactions such as feelings of helplessness or overinvolvement are likely to become activated when facing termination. In the termination phase, a patient may react in a psychic equivalent mode of functioning, which entails thoughts being experienced as real to the point where the patient sees it as truth, making it difficult for the patient to entertain alternative perspectives (52). This may result in feelings of abandonment which can in turn evoke feelings of guilt or helplessness in the therapist. If the patients also insist that they can only recover in the presence of a therapist, the therapist may feel overprotective and act on this feeling by deciding to prolong the therapy or refer the patients to another treatment modality, as many of the therapists in this study report having done. Therapists may also experience countertransference reactions that interfere with their ability to recognize the patients' resources (53). With a lack of epistemic trust in the patients' ability to reach a certain level of autonomy (45, 54), the therapist may run the risk of maintaining the patient's belief that more therapy will always be needed and available. In these cases, the challenging endings may merely become postponed instead of mentalized (51).

As mentioned by one therapist, the emotional strain caused by a higher turnover at the clinic may also be due to a higher number of beginnings as well. Empathically relating to new patients and building epistemic trust and a working alliance can be challenging (45), perhaps especially if the therapist quickly gets intensely involved in the patient. These challenges are even more sparsely described than termination challenges in the psychotherapy literature, but they can nonetheless be of great importance to gain an understanding of going forward.

The question of when termination is appropriate is inextricably linked to the question of change processes discussed above, that is, what kinds of change the therapy should bring about and hereby what the goal of psychotherapy is. Firstly, it should be noted that the groups in the study are terminated in accordance with the assigned treatment duration. The fixed termination dates of MBT in the public health care system is in contrast to a more flexible, individual assessment, focusing on whether the relevant goals of therapy have been met. Perhaps psychotherapy with a fixed termination date calls for more flexible therapeutic goals, whereas more fixed therapeutic goals call for a flexible termination date or the option of prolonging treatment.

This study has several strengths. First, it has a high degree of external validity as it included experienced MBT therapists in an outpatient clinic for personality disorders. Second, it has a clear clinical objective, as it is based on experiences from a clinical setting and includes only therapists with direct experience with the relevant therapies as participants. Therefore, the results of the present study can be generalized to other MBT clinics, who seek to implement short-term MBT as part of their treatment service for patients with BPD. The therapists' suggestion for improvement of short-term MBT could be taken into account when implementing the program in the future. For example how to implement measures to prevent therapist burnout as a result of a high patient load and rapid turnover as a result of the short-term format.

This study also has limitations. First, the study was conducted in a specific context including very experienced therapists who had been doing long-term MBT for a long time, and were still transitioning to the short-term MBT program. Therefore, the findings of this study may not generalize to newly set-up clinical settings or to more novice therapists. Second, the therapists who participated in the study were all part of the same team of therapists at Stolpegaard Psychotherapy Centre. It is likely that the therapists have previously discussed some of the topics from the interviews in the staff group, and thus some of the opinions expressed in the interview may also have been influenced by experiences shared through discussion among the therapists. Third, the limited number of participants in this study makes an in-depth exploration of their experiences possible, but it also raises an issue about generalizability of the findings. Qualitative studies of this nature are concerned with generation of ideas and hypotheses rather than generalizability of findings (55), leaving the question of how the experiences of the therapists in this study relates to a wider population of MBT-therapists open. Fourth, two of the authors of this study are principal investigators of The Short-Term MBT Project (SJ, SS) and could thus have blind spots regarding the qualitative analysis of the findings. This is especially important in relation to our epistemological framework which is contingent on a high level of reflexivity. However, since the researchers' experiences are seen as a precondition for interpretation rather than biases to be completely eliminated in the hermeneutic tradition, the two researchers' close connection with the field of investigation may therefore also be regarded as a strength. Furthermore, all discussions in the research team were based on blinded transcripts of the interviews to make sure that the participants could talk more freely. Finally, the overall questions guiding our study could also have been framed as a question of implementation science. Only few studies have investigated how outcomes of MBT are affected by changes in organization and staff (56). More studies on implementation are available for Dialectical Behavior Therapy (57, 58) although investigators still highlight that further studies are needed to gain a better understanding of how evidence-based treatments for BPD are best implemented in real-world settings.

Future research should focus on the effect of therapist expectations on patient outcomes, preferably within the context of large scale, low risk of bias randomised clinical trials. Where therapists with different allegiances and sociodemographic characteristics are directly compared. However, a limitation of such a design is that therapist allegiance could change over time, perhaps as they become more familiar with the intervention. Therefore, allegiance would have to be overseen throughout the trial period.

## Conclusion

This study suggests that the introduction of short-term MBT is associated with some reservations and some degree of resistance among the therapists. The therapists seem to experience short-term MBT as more challenging in areas such as emotional investment, time pressure, and termination. Furthermore, the therapists mostly express allegiance with long-term MBT and suspect that the treatment effects of short-term and long-term MBT differ in terms of change processes and general symptom reduction, especially when it comes to severe

attachment-and personality-related pathology. When asked to point at possible improvements to the short-term MBT program, the therapists often indicate a wish for the program to be longer.

With this study, we have investigated the challenges experienced by therapists when faced with a new short-term MBT program. It is our hope that future short-term MBT initiatives can be informed by the findings of this study, which can aid in smoother implementations of similar initiatives.

## 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 review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The patients/participants provided their written informed consent to participate in this study.

## Author contributions

AS conducted and transcribed all interviews. All codes and themes were discussed between AS, SJ, and SS. AS wrote up the manuscript draft with ongoing supervision from SJ, SP, and SS. All authors contributed to the article and approved the submitted version.

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## 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.

The handling editor ML declared a past co-authorship with the author SS.

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## Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2023.1088865/full#supplementary-material

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# Life stories of patients with personality disorders before and after treatment: Change and stability in agency and communion

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**Introduction:** Studying written life stories of patients with personality disorders (PDs) may enhance knowledge of how they understand themselves, others and the world around them. Comparing the construction of their life stories before psychotherapy to their reconstruction after psychotherapy may provide insight in therapeutic changes in the understandings of their lives.

**Methods:** As few studies addressed this topic, the current study explored changes in agency (i.e., perceived ability to affect change in life), and communion (i.e,, perceived connectedness to other persons) in written life stories of 34 patients with various PDs, before and after intensive psychotherapy treatment.

**Results:** Life stories showed a positive increase in agency from pre- to posttreatment, in particular regarding internal agency, societal success, and occupational success. No significant changes were observed for communion as a whole. However, the perceived number and quality of close relationships revealed a significant positive increase.

**Discussion:** The increased agency in the reconstruction of patients' life story after psychotherapy suggests that patients improved their perceived ability to affect change in their own lives. This can be seen as an important step in the treatment of PDs towards further recovery.

KEYWORDS

**life stories, personality disorders, psychotherapy, agency and communion, narrative identity**

## Introduction

Individuals with personality disorders (PDs) are a heterogeneous group with complex presentations that are characterized by significant distress and/or functional impairment (1). PDs are substantially prevalent in the general population (6.1 to 9.1%; (2, 3)) and in mental health care settings (40–90%; (4)). They are associated with suicide risk (5), high burden of disease and high economic costs for society (6). PDs are maintained by poor metacognition, the capacity to understand mental states of oneself and others for purposeful problem solving, and maladaptive interpersonal schemas, based on experiences and expectations from earlier relationships (7–9). As a result, life stories of patients with PDs would show low levels of agency and communion. Although the effectiveness of psychotherapy for patients with PDs is well documented (10–13), a better understanding of psychotherapeutic change is considered essential for the further development of treatments for PDs (14–17). The therapeutic alliance is

considered to be a decisive component of psychotherapy strongly connected to treatment outcome (18). Also, there is moderate to strong evidence that emotional change (regulation, awareness, and transformation), socio-cognitive change (mentalizing, meta-cognition, and interpersonal patterns), and increase in insight and change in defense mechanisms contribute to healthy change in treatment for PDs (19). Based on meta-theoretical models of therapeutic change, (20) proposed a theoretical framework named 'Agency *via* Awareness' in which they identify two theoretical assumptions: (1) that increasing agency is a fundamental aim of psychotherapy, and (2) that therapists enhance patients' agency by increasing their awareness. Life stories of patients with PDs form a reflection of their awareness of their internal and external reality. Therefore, a narrative approach through examining life stories of patients with PDs before and after psychotherapeutic treatment may provide interesting perspectives on change by providing information that standardized assessments or outcome questionnaires might miss.

In the perspective of narrative psychology, human beings give meaning to their life through the narration about themselves, others and the world around them in life stories (21–26). In their life stories, individuals convey to themselves and others who they are now, how they came to be, and where they think their lives may be going in the future (23, 27). This process involves the formation of a narrative identity that provides individuals with a sense of purpose and meaning to their perceived past, present and anticipated future (23, 28–32). Agency and communion are two fundamental and central themes in narrative identity (28, 31, 33). Agency refers to the degree to which individuals are able to affect change in their own lives or influence others in their environment, often through demonstrations of self-mastery, empowerment, achievement, or status. Communion refers to the degree to which individuals demonstrate or experience interpersonal connection through love, friendship or dialog (27). Research has shown that narrative identities high on agentic and communal content are related to higher levels of well-being (34–36). For example, Mendes et al. (24) noted that more reflective narratives and ones which included innovative moments were associated with better therapy outcomes. (37) concluded that an increase in metacognition was connected with symptom reduction at 6 months follow-up. Lack of agentic content in narrative identities is related to the inability to cope with life's circumstances (28, 38), and an excess of agentic content to overly self-centeredness (39). Lack of communal content in narrative identities is related to the absence of nourishing relationships or presence of toxic relationships, and an excess of communal content to overly selflessness (39–41).

Identity is one of the key-domains that is disturbed in patients with PDs or PD symptomatology, but studies that have examined their narrative identity are scarce (28, 31, 38, 42–45). For example, (28) analyzed life story interviews of 20 adults with features of borderline PD (BPD; i.e., three or more DSM-IV criteria), and a corresponding sample of 20 adults without BPD (i.e., no DSM-IV BPD criteria). They found that agency and communion were significantly less fulfilled among those with than those without BPD features. Similar findings were reported more recently by Lind et al. (45), who examined a sample of 30 adults with BPD and 30 matched controls. Those with BPD, compared to the controls, described their personal life stories more negatively and with fewer themes of agency and communion fulfillment. Kverme et al. (43) interviewed 12 female patients with BPD about their experiences with treatment and recovery, and found that change processes move beyond symptom reduction, and shared the overarching theme of moving toward a personal sense of connectedness. 38 examined narrative identity of five patients with BPD by analyzing the biopsychosocial interview conducted at intake, and the transcription of the first five sessions of psychotherapy. They found that the prevalence of the narrative themes agency and communion was low. Taken together, these findings suggest that lack of agency and lack of communion is prevalent in the narrative identities of patients with PDs, especially with BPD of BPD features. As far as we know, only one study has examined change in narrative identity in patients with BPD after treatment (44). In this study, life stories were analyzed from 23 patients with BPD compared to life stories from 23 control participants, before and after 12 months of psychotherapy. Using a mixture of semi-structured interviews and questionnaires, participants were asked to describe multiple aspects of their life stories which were coded for complexity, emotional valence, agency, and communion. Before therapy, patients with BPD showed low levels of agency and communion fulfillment compared to the controls. After 12 months of therapy, the life stories of the patients with BPD contained significantly more agency and complexity. There were no differences found in the other life story aspects (i.e., communion and emotional valence). The authors conclude that increased agency in life stories may lessen symptoms that are due to an experienced lack of control (such as self-harm or suicidal behavior), and may help patients toward more adaptive behavior.

In 2020 Lind et al. conducted a systematic review over the last decade on how patients with PD and PD pathology construct their narrative identity. The 14 peer-reviewed, English articles used cross-sectional research designs, seldom with a control group of healthy adults. The studies used predominantly categorical operationalizations of PD and were not necessarily carried out in the context of treatment. They asked for personal life stories or significant, self-defining memories by means of semi-structured interviews. The following prominent characteristics of narrative identity were found: (1) motivational/affective themes: negative valence, low agency, low communion fulfillment, and high contamination, (2) autobiographical reasoning: high amount of negative causal connections, and (3) structural elements: mixed results on memory specificity, no significant differences on complexity, low coherence and less life scripts events.

The studies were largely based on female patients with a main diagnosis of BPD. The DSM5 alternative model of personality disorder brought more attention to the sense of self, and authors conclude that more research into narrative identity in PD is needed to learn more about the nature of disordered personality functioning. The aim of this study is to examine change in life stories of patients with PDs before and after psychotherapy, that is the construction and reconstruction of narrative identity, on the themes agency and communion to enhance knowledge of how patients with PDs understand themselves, others and the world around them. The present study differs from the study of (44) in that the life stories were authentically written by patients in a treatment context and were not obtained using a semi-structured interview. In addition to deductive agency and communion coding, we worked with inductive coding which led to a coding schema in which the narratives themes agency and communion were examined in different levels (fulfillment, lack and excess of the theme) and specific meanings, instead of being treated as a single factor.

A qualitative approach was used for describing how agentic and communal content were present in the written life stories of patients with PDs before and after psychotherapeutic treatment. Whereas most studies assessed agency and communion as single dimensions e.g., (28), the current study also took a more bottom-up approach in studying the

qualitative content of agency and communion in order to provide more detailed insights into which strengths and challenges people with PDs experience in agency and communion. Next, a quantitative approach was used to examine the changes in prevalence in these narrative themes before and after treatment. In this explorative study our research questions were: (1) Which levels and specific meanings do agency and communion have in life stories of patients in treatment for PD (28, 31, 38, 45), and (2) Which differences in levels and specific meanings do exist in their life stories at the start and end of treatment (43, 44, 46–49)?

# Method

## Setting

This study was conducted in a psychotherapeutic treatment center for patients with PDs that offers residential or day-hospital multidisciplinary group-treatment based on dialectical behavioral therapy (focusing mostly on acquiring skills and works toward practical and emotional stability; (50, 51), and schema focused therapy (focusing mainly on recognizing and adjusting own thought and behavioral patterns, and calls for greater reflection and development of insight; (9, 52)). Participants stayed in residence during 10–12 months (either DBT or ST) or attended weekly 3 days at the specialized day-hospital setting during 9–11 months (combined DBT and ST). The treatment program existed of group therapy (DBT/ST) supplemented by arts therapy, including creative and music, psychomotor psychotherapy, and rehabilitation counseling. A psychiatrist, two clinical psychologists, a creative arts therapist, a psychomotor therapist and psychiatric nurses ran each site. Each day lasted 6 h, divided in the week over group therapy (DBT/ST; 1.30 h.), group therapy (psychodynamic; 1 h.) arts therapy (1 h.), psychomotor therapy (1 h.), rehabilitation counseling (1.25 h.), and divided over the day milieu therapy (1 h. day-hospital, 2 h. residence), lunch break (1 h.), opening- and closing meetings (0.25 h., each). Participants had to attend at least 32 weeks to be considered as someone who completed the treatment, with a maximum of 48 weeks. In previous research, the treatment has proven to be effective in improving personality functioning, well-being and quality of life (51, 53).

## Participants

The majority of the 34 participants were female (79.4%), with a mean age of 32.6 years (SD = 10.4). In all, 35.5% reported completing higher vocational training or university, 23.5% mid-level vocational training, 26.5% upper secondary vocational education and 14.7% pre-vocational secondary education. Among the sample, 47.1% met the DSM-IV diagnostic criteria for PD not otherwise specified, 38.2% for an avoidant PD, 17.7% for a dependent PD, 5.9% for an obsessive–compulsive PD; and 38.2% had traits of Avoidant PD, 26.5% Borderline PD, 17.6% Dependent PD, 11.8% Obsessive–Compulsive PD and 2.9% Narcissistic PD. Also, 88.2% met the diagnostic criteria for comorbid mood disorders: 64.7% for anxiety disorders, 26.5% for eating disorders, 11.8% for psychosocial problems, 8.8% for substance abuse, 8.8% for somatoform disorders and 5.9% for attention deficit and hyperactivity disorder. The majority of the 34 participants followed treatment in the specialized day-hospital setting (55.9%; combined DBT and ST) whereas 20.6%, respectively, 23.5% followed DBT or ST residential treatment.

## Materials

### Life stories

Participants wrote their life stories in response to the following open-ended question, asked prior to admission to the psychotherapeutic treatment center: "For admission, we would like you to write your life story and a short motivation for your registration for treatment." After the end of treatment, another question was asked that consisted of the following lines: "We would like you to write your life story again from your current viewpoint, after treatment." These questions were broadly formulated in order to allow participants to write about their lives in their own words and better understand how participants construct and reconstruct their life story. The sample consisted of 34 pairs of life stories before treatment with a mean of 2,194 words (SD = 2,227; range 267–9,807) and after treatment with an mean of 1,516 (SD = 1,838; range 410–6,368). On the basis of a qualitative assessment, all life stories contained story elements, like a beginning, middle and end with descriptions of personal life experiences. Even though these were not necessarily coherent or complete (54), they provided sufficient information for the analysis of agency and communion.

## Procedure

The study was approved by the ethical review board of the University of Twente, the Netherlands. Patients were eligible to participate in the current study when they met the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (55) criteria for at least one personality disorder, as assessed by a psychiatrist or clinical psychologist, based on a clinical interview or previous existing diagnostic information. Participants were recruited from 121 consecutive admissions between December 2014 and April 2016. The drop-out of 41 patients (33.9%) was not unusual for this patient group (56). 51 (42.1%) patients were asked to write their life story after treatment. The main reasons for not asking were that practitioners thought it would ask too much of patients (e.g., due to a worsening condition) or that they had forgotten to ask. 37 (30,6%) patients were willing to write their life story after the end of treatment. Participants were given as much time as needed to finish their life stories. After providing informed consent, 36 participants remained. *A priori* power analysis for a paired t-test with alpha = 0.05, moderate effect size (Cohen's d = 0.5), and power = 0.80 (G * Power 3) (57) yielded a sample size of 34. Therefore, from the remaining 36 participants, 34 were selected at random. No data is available for the 85 non-respondents because they did not give consent.

## Analysis

### Qualitative content analysis

Content analysis (58, 59) was used to systematically describe and quantify written life stories before and after treatment (28, 60). Atlas.ti 8 software was used to support the analysis. Meaning units were assigned to all parts of the interviews in consensus by two researchers (SP and FS): a meaning unit for coding consisted of words, sentences or paragraphs containing related aspects in both content and context (61). A hierarchical coding scheme was developed, using deductive (themes of Agency and Communion) and inductive (qualitative content of the themes) procedures. The resulting scheme had two themes, that were subdivided into seven subthemes and 18 codes (see

Table 1). The process of content analysis consisted of four steps. The first step concerned the development of a codebook making use of a deductive analysis (theory driven) based on existing definitions of agency and communion (40, 41). The agency theme relates to intellectual desirability, competence, initiating structure, instrumentality, egoistic bias, dominance, and an independent self-construal. The communion theme relates to social desirability, morality, consideration, expressiveness, moralistic bias, nurturance, and an interdependent self-construct. Because of the relatively new sample, patients with PDs, an inductive analysis (data driven) was conducted which led to a distinction between three subthemes: fulfillment, lack and excess of the narratives themes agency and communion, unlike the coding schemas of Adler and McAdams in which these themes were treated as a single factor.

Two authors (SP and FS) thoroughly read a sample of six pairs of narratives, pre- and post-treatment, to become completely familiar with the data. They subsequently assigned one or more subthemes to all meaning units. The second step concerned inductive content analysis. The same six pairs of narratives were analyzed and discussed between three authors (SP, SF, and GW), which resulted in a division of the assigned subthemes into more specific codes. Furthermore, several meaning units, that were not assigned to subthemes in step one, were summarized in a new subtheme for agency, i.e., maladaptive coping, which again was subdivided in relevant codes. The third step was an analysis of another sample of nine pairs of narratives. This analysis confirmed the subthemes and related codes. As no new codes arose, saturation was reached and the codebook could be completed with a consensual formulation of codes, and supporting coding rules. The fourth step consisted of the application of the codebook to all 6,311 meaning units in 34 pairs of narratives. Consensual coding, a standard qualitative methodology (62), was used: two researchers (SP and SF) independently coded all meaning units and discussed their coding accordingly until consensus was reached. Each meaning unit could receive multiple codes, i.e., the coding was orthogonal so a total amount of 6,950 was assigned.

### Quantitative analyses

The percentage of life-stories in which a (sub)theme or code occurs were calculated, as well as the proportion of meaning units in each life-story that were coded with a (sub)theme or code. In this way we corrected for potential length differences between the life-stories before and after treatment. As most of these proportions were not normally distributed, the Wilcoxon signed-rank test, a nonparametric test equivalent to the dependent sample *t*-test, was conducted along with the *t*-test. As the same significant differences were found, the results of the paired *t*-tests were reported for ease of interpretation. Furthermore, effect sizes were calculated using Cohen's *d* (63), based on post- minus pretreatment scores divided by the pooled standard deviation. Magnitudes of effect sizes (*d*) of >0.56 were considered large, between 0.33 and 0.55 moderate and below 0.33 small (64). The statistical analyzes were performed using IBM Statistical Package for the Social Sciences, version 22 (IBM, 2013).

## Results

## Qualitative content analysis

### Agency

Content analysis of the theme agency resulted in the emergence of four subthemes and 11 codes (see Tables 1 and 2). The subtheme 'Fulfillment of Agency' covers a positive focus on independence and desired goals and directions of life. There are three different aspects of

TABLE 1 Themes, subthemes and codes of deductive and inductive content analysis.

| Themes | Subthemes | Codes |
|---|---|---|
| Agency | Fulfillment of agency | Internal control<br>Initiating support<br>Achievements |
| | Lack of agency | Lack of internal control<br>Lack of contextual control<br>Trauma<br>Failure |
| | Maladaptive coping | Self-mutilation<br>Suicidal behavior<br>Avoidance<br>Other self-destructive behavior |
| | Excess of agency | |
| Communion | Fulfillment of communion | Presence of relations<br>Quality of relations<br>Empathy |
| | Lack of communion | Missing relations<br>Lack of relatedness<br>Traumatic lack of relatedness |
| | Excess of communion | |

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TABLE 2 Subthemes, codes and examples of quotes.

| | |
|---|---|
| **Agency** | |
| **Fulfillment of agency** | |
| **Internal control**<br>Situations are described such as the narrator called the police, continued to study, got to know herself, initiated talking about emotions, dared to tell others about being abused or was actively involved in sports. | *Although things [at home] were very bad, I never stopped studying. D12-2*<br>*I got to know myself, learned to recognize and set boundaries, learned to feel, to accept myself, finding myself a nice person and much more. D30-2* |
| **Initiating support**<br>Persons describe that they succeed in arranging help from their environment: they get parents to talk to school to put an end to being bullied, a friend to call parents about a crisis, a general practitioner to refer the person for psychotherapeutic help and a psychiatrist to prescribe medication that helps them gain control over emotions. | *It was so bad that I called my best friend to come and get me. D17-1*<br>*The outpatient care has taught me a lot during the past one and a half years. D1-1* |
| **Achievements**<br>Experiences are described that lead to a proud sense of achievements in one's life, such as completing school or university successfully, having an own business, getting promotion in one's job, teaching or coaching sports in one's spare time, and managing to get a home of one's own. | *Meanwhile, I passed my MAVO [secondary school diploma] at the age of 15. D65-1*<br>*I then ran my own kindergarten. D33-1* |
| **Lack of agency** | |
| **Lack of internal control**<br>Persons describe how they have difficulties starting each day, feeling depressed, not knowing how to care for oneself, escaping from daily life through drugs, not being able to tell about being abused, losing the drive to study and being aware of not directing one's life. | *I never gave direction to my own life. I have never even thought about what this direction should be like. D44-2*<br>*I would like to study, but my insecurity and perfectionism get in the way. D-1* |
| **Lack of contextual control**<br>Situations stretch from being confronted with illness and missing school, to having traumatized parents, having to deal with parents' decisions on moving, or parents living according to the rules of strict religion and having a depressed and/or substance abusing partner. | *My parents, who came from families with problems, struggled when I was very young (0-4 years) with psychological problems. For my father, this manifested itself in repeated burnouts, depression and flight behavior. While for my mother, the stress expressed itself in illness and severe depression. D64-2*<br>*He [her partner] became depressed and consumed more alcohol and drugs. D1-1* |
| **Trauma**<br>Situations are reported of violence and insecurity at home, at school and in the neighborhood, and sometimes the extension of misery in relationships. | *At home, there was much violence and insecurity. D53-1*<br>*I was really bullied at high school. I don't know the real reason for this but I think it was because I was different from the others. They would wait on me, trip me up, hide my stuff somewhere, follow me around and call me names. I think this period of my life has largely been the cause of my low self-esteem. D25-1* |
| **Failure**<br>A sense of failure is described around dropping out of school because of too much stress, being suspended from school, or being fired from work because of substance abuse, and losing not only one's job but sometimes also one's place in society. | *I was suspended when I was 15 and was told I did not have to come back, so I drank and I smoked hash. D37-1*<br>*In 2014, I became 100% incapacitated for work. On the one side it meant security, on the other side I had to accept that I no longer counted in society. D55-1* |
| **Maladaptive coping** | |
| **Self-mutilation**<br>Behaviors are described such as hurting oneself by cutting and burning, or swallowing large quantities of pills. | *Then it happened more and more, I was obsessed with the color of my blood and how it flowed over my arm and addicted to the burning sensation. D17-1*<br>*I started when I was 15 with scratching and wrapping strings around me (body parts), drinking cleaner and vomiting when I suffered pain or had eaten too much or was called a fat baby. D24-2* |
| **Suicidal behavior**<br>Thoughts and actions are described aiming at ending one's own life by making scenarios for suicide, taking an overdose of pills or stopping with eating and drinking. | *The misery at home, boyfriend and school, everything was a total misery, so I (at 16 years of age) took a large dose of pills, I did not want/could not go on anymore. D65-1*<br>*If so, I will put an end to it [my life]. I've been thinking this thought for years and about all the possible scenarios for that. D67-1* |
| **Avoidance**<br>Situations are described like refusing to see reality, continuing to disconnect, fleeing in work or computer games, lying and keeping things hidden from others, not taking time to rest, not being in contact with one's own feelings, avoiding living during the day, not directing one's life but just being guided by circumstances. | *I refused to see reality. D8-2*<br>*I have always kept this [abuse by her partner] hidden from family and friends. D4-2* |

*(Continued)*

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TABLE 2 (Continued)

| | |
|---|---|
| **Maladaptive coping** | |
| **Other self-destructive behavior**<br>Behaviors are described like ongoing substance abuse, restrictive eating, sleeping with strangers, repressing feelings and refusing help. Persons are more or sometimes less aware of the self-destructiveness of these behaviors. | *And despite the misery before, especially with alcohol as a cause, I kept drinking a lot in the evenings as well as whole nights. D52-2*<br>*When people wanted to get closer, I would hurt them as much as possible, with the intention that they would never come back. D64-2* |
| **Excess of agency** | |
| Situations are described of putting one's own needs first, while ignoring, neglecting or sometimes even violating the needs of others. | *My experience in [name city] taught me to put myself first. I had no respect for teachers or other children. D54-2*<br>*[I made myself] big and tough and had a big mouth. D68-2* |
| **Communion** | |
| **Fulfillment of communion** | |
| **Presence of relations**<br>Relationships in the narrator's life are mentioned ranging from parents, partners, brothers and sisters to a school mentor or football coach, general practitioner or psychotherapist, friends and pets. | *After I was born, the three of us were living with my grandfather and grandmother. D15-1*<br>*I got my first horse when I was 11. I could spend the whole day with him. D42-2* |
| **Quality of relations**<br>Descriptions are found of meaningful experiences feeling safe and respected, being understood, receiving recognition and protection, being offered support and help, doing nice things and working together. Participants describe feeling acknowledged and because of that more strong and resilient, they find their values again and feel that a warm and trustful environment helps them develop. | *When I told about it, I cried really hard but my father responded very well. D15-1*<br>*My social environment is also happy that I express my feelings now. In this way, they also get to see how I am doing and get a better understanding of everything. I have better and a lot more contact with my immediate environment. That is very nice to experience. D26-2* |
| **Empathy**<br>Persons describe that sometimes behaviors of others, even when experienced as being destructive, can be understood in the circumstances in which the other person lives. Participants describe how this knowledge is important for a better understanding of one's own experiences and that the destructive behavior of (important) others has nothing or indeed very little to do with the narrator him/herself. | *Our family life was so meagre because my parents had difficulties understanding themselves and choosing their own (family) happiness. D20-2*<br>*My parents did not know what was happening in my life and thought that I was a difficult kid. D36-2* |
| **Lack of Communion** | |
| **Missing relations**<br>Situations are described in which important relations are absent or lost, like fathers being absent, a brother or sister having died, or a friend having moved away. | *I only know that my father was barely home. I frequently did not see him for a couple of days. D2-2*<br>*My younger brother died. D56-2* |
| **Lack of relatedness**<br>Contact with others is described as (emotionally) distant, emotions are not spoken about, the person feels alone and different from others. Parents have hardly any time for the family or children and are busy with work and other people. There is a remoteness felt with peers and in important relations that is responsible for a feeling of utter loneliness. | *If he was at home, he was just present and that was all that could be said of him. I do not feel like he has really been a father to me. D30-2*<br>*Like my parents, [the therapist] thought it was a puberty thing. In the meanwhile, self-mutilation continued. D6-2* |
| **Traumatic lack of relatedness**<br>Situations are described of domestic violence and sexual abuse from parents to children and between parents. Also, the abandonment, sometimes by chosen death, by parents has been described as always affecting the narrator's further life. Peers can be perpetrators when bullying and threatening at school or work, and use extreme violence in relationships. Narrators describe how these traumatic experiences leave them frightened, damaged and completely broken down. | *The images of my mother struck by my father are still imprinted on my eyelids. Broken bones and blood on the wall. D54-2*<br>*I still find it difficult to say his name. He has completely destroyed the self-esteem that I had. D8-2* |
| **Excess of communion** | |
| Situations are described of being insufficiently in contact with one's own needs, feeling extremely dependent on the opinion and approval of others and/or putting others first. | *He wanted me to be home when he called. Yet he never said what time he would call. So, practically every day I sat waiting for him in my parents' bedroom from 4 am till 10-11 in the evening. D51-1*<br>*Unfortunately, he drew me into his environment of bunking school, drugs and theft. D45-1* |

agentic qualities. The first code 'Internal Control' describes a broad range of agentic behaviors, like standing up for oneself, perseverance, being in connection with one's own desires and behavior, being aware of environmental factors and formulating goals and wishes. The second code 'Initiating Support' describes the ability to direct oneself toward one's goals initiating support from family, friends, teachers, healthcare and medication. Persons describe relief when they succeed in arranging help from their environment; when they get parents to talk to school to put an end to being bullied, get a friend to call parents about a crisis, get a general practitioner to refer the person for psychotherapeutic help and get the psychiatrist to prescribe medication that helps them gain control over emotions. The third code 'Achievements' addresses positive social and occupational performances in areas of school and education (obtaining diplomas), employment, and living by oneself.

The subtheme 'Lack of Agency' describes an experienced lack of governing ability and autonomy and exists of four different codes that all show a shortage in agentic qualities. The first code 'Lack of Internal Control' reviews a broad range of experiences of lack of self-governing ability expressed in described complaints, lack of self-efficacy in practical and psychological matters and a lack of problem solving and regulatory skills. The second code 'Lack of Contextual Control' describes the perceived lack of influence on external circumstances experienced as negative and disadvantageous but not in strict terms defined as traumatic. The third code 'Trauma' concerns the experience of being overwhelmed by severe and dangerous situations such as being bullied, death of loved ones, and/or psychological and physical and/or sexual abuse. The fourth code 'Failure' addresses problems with achieving social and occupational performance in the areas of school and education (obtaining diplomas), and work.

Within the subtheme 'Maladaptive Coping', a way of coping with life is described that is harmful or has harmful aspects for the person him/herself. There are four codes. The first code 'Self-Mutilation' describes behaviors such as hurting oneself by cutting and burning oneself or swallowing large quantities of pills. The second code 'Suicidal Behavior' concerns thoughts and actions aimed at ending one's own life by making scenarios for suicide, taking an overdose of pills or stopping with eating and drinking. The third code 'Avoidance' refers to fleeing from problematic emotions and situations, instead of actively tackling these. The fourth code 'Other Self-Destructive Behavior' describes a range of other behaviors such as ongoing substance abuse, restrictive or overeating, promiscuous behavior, suppressing feelings and refusing help.

The subtheme 'Excess of Agency' describes an excessive focus on autonomy and desired goals at the expense of cooperation with others. It had no further subdivision in codes and describes putting one's own needs first, while ignoring, neglecting or sometimes even violating the needs of others.

### Communion

Analyzing the content of the theme communion led to the emergence of three subthemes and six codes (see Table 1). The subtheme 'Fulfillment of Communion' has a positive focus on others for the benefit of relatedness. It offers a rich pallet of impressions on the quality of the relationships described in the narratives. There are three codes within this subtheme. In the first code 'Presence of Relations', existing relationships in the narrator's life are positively mentioned ranging from parents, partners, brothers and sisters to a school mentor or football coach, general practitioner or psychotherapist, friends and pets. In the second code 'Quality of Relations', descriptions are found of meaningful experiences with positive emotional relationships with family and family members, partners, peers, teachers, care workers, and the whole of a specific treatment environment. The third code 'Empathy' reveals that the behaviors of others, even when experienced as being destructive, can be understood in the circumstances in which the other person lives.

The subtheme 'Lack of Communion' has a negative focus on and lack of relatedness with others. It describes a range of lacking qualities in relationships with other persons. In the first code 'Missing Relations', the absence of relationships in the narrator's life is mentioned, like fathers being absent, a brother or sister having died, or a friend having moved away. The second code 'Lack of Relatedness' describes the experience of a lack of emotional engagement with others. Contact with others is described as (emotionally) distant, emotions are not spoken about, the person feels alone and different from others. The third code 'Traumatic Lack of Relatedness' reviews the realization of a broad range of traumatic experiences of contact with more or less important persons, from severe bullying by peers, traumatic death of loved ones to psychological, physical and/or sexual abuse within or outside the family or intimate relations.

The subtheme 'Excess of Communion' describes a focus on others at the expense of one's own autonomy. It had no further subdivision in codes and describes being insufficiently in contact with one's own needs, feeling extremely dependent on the opinion and approval of others and/or putting others first.

## Quantitative analysis

The length of the narratives varied widely between participants and showed a reduction after treatment (pre-treatment life stories $M = 2{,}194$ words, SD = 2,227; post-treatment life stories $M = 1{,}516$, SD = 1,838; $t(33) = 0.08$; $p < 0.05$). Table 3 provides the prevalence of themes, subthemes, and codes before and after treatment.

### Patterns before treatment

The first research question concerned the levels and specific meanings of agency and communion in life stories of patients in treatment for PD. Before treatment, the theme 'Agency' occurred in all narratives percentage of Narratives (%Nar 100%) and in a large part of all meaning units (Mean Proportion of Meaning Units (MPMU) 64.21%). Although all participants experienced 'Fulfillment of Agency' (MPMU 29.82%), they all struggled with an about equal sense of 'Lack of Agency' (MPMU 34.39%). 'Maladaptive coping' was described in almost all narratives (%Nar 82.4%), be it in a small proportion of meaning units (MPMU 5.62%), whereas 'Excess of Agency' was found regularly (%Nar 17.6%) but in a very small proportion of meaning units (MPMU 0.21%). The subtheme 'Fulfillment of Agency' consisted for a large part of the code 'Internal Control' (%Nar 100%; MPMU 20.46%) and to a lesser degree of the codes 'Initiating Support' (%Nar 97.3%; MPMU 5.93%) and 'Achievement' (%Nar 85.3; MPMU 3.63%). The subtheme 'Lack of Agency' showed roughly the same pattern for the codes 'Lack of Internal Control'(%Nar 100%; MPMU 23.58%), 'Lack of Contextual Control' (%Nar 94.1%; MPMU 8.35%), and 'Failure' (%Nar 38.2%; MPMU 0.95%). The code 'Trauma' (%Nar

TABLE 3 Percentages of narratives, mean proportion of meaning units and standard deviation (between parentheses), paired *t*-test (*t*), and effect sizes (Cohen's d) for subthemes and codes comparing pre and posttreatment.

| Theme | | | | | | | |
|---|---|---|---|---|---|---|---|
| Subtheme | Code | Pretreatment % narratives | Posttreatment % narratives | Pretreatment *M* (SD)% | Posttreatment *M* (SD)% | *t* | *d* |
| **Agency** | | | | | | | |
| Fulfillment of Agency | | 100 | 100 | 29.82 (8.60) | 36.69 (12.00) | −2.85 | −0.66** |
| | Internal Control | 100 | 100 | 20.46 (6.24) | 30.19 (12.87) | −4.58 | −0.96** |
| | Initiating Support | 97.1 | 100 | 5.93 (5.04) | 4.94 (2.21) | 1.19 | 0.26 |
| | Achievements | 85.3 | 67.6 | 3.63 (2.90) | 1.65 (1.85) | 4.11 | 0.78** |
| Lack of Agency | | 100 | 100 | 34.39 (8.20) | 27.82 (8.95) | 3.83 | 0.77** |
| | Lack of Internal Control | 100 | 100 | 23.58 (9.37) | 17.85 (8.90) | 2.87 | 0.63** |
| | Lack of Contextual Control | 94.1 | 85.3 | 8.35 (4.96) | 8.87 (7.26) | −0.49 | −0.08 |
| | Trauma | 44.1 | 35.3 | 1.53 (2.89) | 0.93 (1.45) | 1.18 | 0.26 |
| | Failure | 38.2 | 20.6 | 0.95 (2.28) | 0.31 (0.82) | 2.05 | 0.37* |
| Maladaptive Coping | | 82.4 | 85.3 | 5.62 (5.55) | 5.11 (4.56) | 0.59 | 0.1 |
| | Self-Mutilation | 47.1 | 32.4 | 1.14 (2.17) | 0.76 (1.39) | 1.75 | 0.21 |
| | Suicidality | 38.2 | 38.2 | 1.44 (3.31) | 0.98 (1.82) | 1.05 | 0.17 |
| | Avoidance | 64.7 | 79.4 | 1.93 (2.37) | 2.52 (2.09) | −1.54 | −0.27 |
| | Other Self-Destructive Behavior | 32.4 | 38.2 | 1.11 (2.27) | 0.86 (1.48) | 0.57 | −0.19 |
| Excess of Agency | | 17.6 | 17.6 | 0.21 (0.55) | 0.22 (0.51) | −0.09 | −0.02 |
| **Communion** | | | | | | | |
| Fulfillment of Communion | | 100 | 97.1 | 23.23 (9.75) | 24.13 (8.82) | −0.77 | 0.1 |
| | Presence of Relations | 97.1 | 94.1 | 13.45 (6.67) | 10.86 (5.83) | 2.53 | −0.41** |
| | Quality of Relations | 94.1 | 97.1 | 9.50 (7.13) | 12.68 (7.66) | −2.16 | −0.43* |
| | Empathy | 17.6 | 29.4 | 0.31 (0.97) | 0.72 (1.53) | −1.26 | −0.32 |
| Lack of Communion | | 97.1 | 91.2 | 13.74 (6.22) | 15.66 (7.80) | −1.24 | −0.27 |
| | Missing Relations | 73.5 | 82.4 | 1.94 (1.99) | 2.56 (2.17) | −1.69 | −0.3 |
| | Lack of Relatedness | 97.1 | 91.2 | 10.35 (5.06) | 11.34 (6.46) | −0.82 | −0.17 |
| | Traumatic Lack of Relatedness | 44.1 | 55.9 | 1.45 (1.66) | 1.78 (1.94) | −0.74 | −0.14 |
| Excess of Communion | | 41.2 | 44.1 | 0.95 (1.36) | 1.41 (2.16) | −1.22 | −0.26 |

*d* = Cohen's d; SD = Standard Deviation. *$p < 0.05$. **$p < 0.01$.

44.1%; MPMU 1.53%) as well as the codes of the subtheme 'Maladaptive Coping' occurred in a substantial part of the narratives, but only in a small proportion of the meaning units; Self-Mutilation (%Nar 47.1%; MPMU 1.14%), Suicidality (%Nar 38.2%; MPMU 1.44%), Avoidance (%Nar 64.7%; MPMU 1.93%), and Other Self-Destructive Behavior (%Nar 32.4%; MPMU 1.11%). These findings answer the first research question, lack of agency (%Nar 100%; MPMU 34.39%) is prevalent in life stories, and fulfillment of agency (%Nar 100%; MPMU 29.82%), was found to an almost equal amount. Furthermore trauma (%Nar 44.1%; MPMU 1.53%) played a role in many life stories and maladaptive coping (%Nar 82.4%; MPMU 5.62%) in most life stories.

The theme 'Communion' (%Nar 100%) also occurred in all narratives before treatment and although less than agency, it was present in a substantial part of all meaning units (MPMU 36.97%). Participants described the 'Fulfillment of Communion' somewhat more often (%Nar 100%; MPMU 23.23%) than 'Lack of Communion' (%Nar 97.1%; MPMU 13.74%). The subtheme 'Excess of Communion' was described in a substantial part of the narratives (%Nar 41.2%), but in a very small proportion of meaning units (MPMU 0.95%). The subtheme 'Fulfillment of Communion' consisted for an important part of the codes 'Presence of Relations' (%Nar 97.1%; MPMU 13.45%) and 'Quality of Relations' (%Nar 94.1%; MPMU 9.50%), whereas 'Empathy' did not occur often (%Nar 17.6%; MPMU 0.31%). The

subtheme 'Lack of Communion consisted mostly of the code 'Missing Relations' (%Nar 73.5%; MPMU 1.94) and for an essential part of the code 'Lack of Relatedness' (%Nar 97.1%; MPMU 10.35%), whereas the code 'Traumatic Lack of Relatedness' occurred in a substantial part of the narratives (%Nar 44.1%) but only in a small proportion of the meaning units (MPMU 1.45%). Lack of communion is quite prevalent (%Nar 97.1%; MPMU 13.74%), but communion fulfillment is even more central to the life stories (%Nar 100%; MPMU 23.23%).

### Changes in pattern

The second research question concerned the differences in levels and specific meanings in the life stories at the start and end of treatment.

A paired *t*-test was conducted to compare subthemes and codes in life stories before and after treatment (see Table 3). 'Fulfillment of Agency' ($d-0.66$, $p<0.01$) was significantly higher after treatment than before. However, the specific meaning of this subtheme changed as well: 'Internal Control' ($d-0.96$, $p<0.01$) showed a significant increase, whereas 'Initiating Support' remained unchanged and 'Achievement' (0.78, $p<0.01$) revealed a significant decrease. The subtheme 'Lack of Agency' (0.77, $p<0.01$) was significantly lower after treatment. This was in particular related to the decrease in 'Lack of Internal Control' (0.63, $p<0.01$) and 'Failure' (0.37, $p<0.05$), whereas 'Lack of Contextual Control' and 'Trauma' remained unchanged. The subtheme 'Maladaptive Coping' and its codes as well as the subtheme 'Excess of Agency' remained unchanged. These findings answer the second research question, there are higher levels of agency after treatment, whereby the specific meaning of agency has changed toward the experience of more internal control, less lack of internal control and failure, but also less experience of achievement.

The proportions of the subthemes 'Fulfillment of Communion', 'Lack of Communion', and 'Excess of Communion' all stayed the same. The prevalence of codes mostly remained the same although there is a shift in focus from the 'Presence of Relations' ($-0.41$, $p<0.01$) to the 'Quality of Relations'($-0.43$, $p<0.01$). These findings answer the second research question; there is not more fulfillment of communion, even though the specific meaning of communion has changed toward a significant positive increase in the perceived number and quality of close relationships.

## Discussion

The aim of this study was to advance the understanding of how patients with PDs construct their own life story before and after psychotherapy. To this end, the content, prevalence and changes in agency and communion in written life stories were explored before and after psychotherapy of 34 patients with PDs. These themes were studied in different qualities, resulting in subthemes of fulfillment, lack and excess of the theme as well as more specific codes, in contrast to other studies that assessed agency and communion as dimensional constructs e.g., (28). In answer to the research question, a lack of agency and communion was prevalent, although fulfillment of agency was equally prevalent and fulfillment of communion was even more prevalent than lack of communion. In answer to the second research question, there was an increase in fulfillment of agency, but no change in communion as a whole, although the perceived number and quality of close relationships revealed a significant positive increase.

The prevalence of lack of agency and communion in the life stories of patients with PDs corresponds with earlier studies on life stories of patients with PDs, although the patients in the current study had a wider variety of PDs than existing studies that focused mainly on borderline PD (28, 31, 38, 42, 45). Before therapy, patients with PDs have a narration of themselves, others, and the world around them that is marked by an impaired orientation on goals, skills and accomplishments, and a lack of safe embedding in social connections. However, it should be noted that fulfillment of agency and communion also played an important role in the stories of patients with PDs, a finding that has not been stressed in previous studies. These findings underline the relevance of giving explicit attention to positive characteristics in treatment to improve well-being and recovery in patients with PD (65).

Furthermore, the content analysis showed that subthemes and codes from the inductive analysis provided richer information about the narratives of persons with PD. In particular, agentic and communal aspects of maladaptive coping strategies and trauma contain meanings of agency and communion that might be specific for persons with PD. The pattern of maladaptive coping strategies, together with traumatic experiences and lack of contextual control, can be interpreted as an attempt to make use of agentic qualities to regulate or avoid overwhelming negative emotions. Also, absence of relations, together with a lack of relatedness and traumatic interpersonal experiences, may contribute to significant impairments in interpersonal functioning. These findings connect to the DSM5 Alternative Model for Personality Disorders in which PDs are defined on a dimensional factor of "moderate or greater impairment in personality (self/interpersonal) functioning" (1), p. 775, provide a rich perspective on these characteristics, and show the value of the inductive approach that was used in the content analysis.

In the reconstruction of their life stories after treatment, patterns of themes revealed positive changes in fulfillment of agency as found by (45). Content-wise, participants were less occupied with success and failure, and were feeling more capable of directing their lives (i.e., improved agency) toward their values. The patterns of themes revealed no change in communion as a whole as earlier found by (44), but the perceived number and quality of close relationships revealed a significant positive increase. The results seem to suggest that improvement in perceived ability on pursuing goals and manifesting skills and accomplishments (agency) and forming and maintaining social connections (communion) are important factors in the recovery of patients with PDs. These results match with a review and previous study on recovery for persons with PDs in which safety, social relationships and autonomy are decisive factors to recovery (19, 43, 49). And the results are in line with the 'Agency *via* Awareness' framework by (20) in which increasing awareness is assumed to lead to increasing agency. Also, psychotherapy outcome research utilizing the Core Conflictual Relationship Theme (CCRT), shows that mastering negative relationship patterns is supporting in developing better relationship patterns with oneself and others (7). Interestingly, the life stories written after treatment were shorter in length. Patients seemed less preoccupied with certain aspects of their lives and events seemed more integrated. This would suggest changes in emotional valence, complexity, and coherence that could be addressed in further research (31).

This study has certain limitations. It examined life stories before and after therapy in a specific setting and did not use a control group

which would have strengthened the conclusions that can be drawn. Furthermore, no clinical measures on level of personality functioning and severity of symptoms could be obtained for every participant which hampers the generalization of the findings. For future studies, it is recommended to study change in narratives in connection with psychotherapy outcomes and measures of personality, so that change can be understood from different perspectives e.g., (66). In this study the sample did only comprise patients having completed treatment which might be the most resourceful patients. As is well-known in clinical practice for PDs, women were overrepresented: future studies could include an analysis of gender differences. In order to collect authentic life stories, the instruction for participants was unstructured and open. Also, the writing process at two moments in time is subject to context effects. These circumstances resulted in large fluctuations between narratives in length and content, making it more difficult to compare the narratives, and draw conclusions about narrative change. In the present study participants were instructed to generate written life stories, but existing studies indicate that an oral versus written narrative format may influence the results (42, 48). Rasmussen used interviews to allow for more detailed and extensive narratives and to check for possible differences in written language skills between participants, but he noticed that interviews also allowed participants to generate more off-target information about events, possibly resulting in slight differences between the findings of both studies. Therefore, we cannot exclude that participants were hindered by writing skills that influenced the results. The patients in this study received either DBT and/or ST and it would have been interesting to examine whether one of the treatments were more efficient on improving agency than the other. For this, psychotherapy outcomes measures as well as a larger number of patients in each condition is needed. The categories "excess of agency and communion" offer an interesting perspective as these might be more prevalent among certain PD subgroups than others. For example, focusing on others at the expense of one's own autonomy might be more prevalent in people with dependent PD. The research by (67) suggests that developing a healthier narrative would be associated with: (a) increased reliance on autobiographical memory instead of semantic reasoning (b) richer descriptions of mental states, (c) passing from predictions that some innermost wishes will remain unmet to ideas that they will be eventually met. For future studies it would be very interesting to examine if these processes are related to quantitative and qualitative changes in Agency and Communion. Although linguistic approaches offer a fundamentally different, albeit complimentary, approach to operationalizing identity (31), a consideration for future studies can be to conduct text analysis based on theoretically driven codes to add to qualitative analysis. An example is the Computerized Reflective Functioning (CRF) that measures the stylistic dimension of reflective functioning by calculating the frequency of some linguistic markers (47).

Nevertheless, a strength of this study is its clinical sample of patients with PDs treated in clinical practice. Another strength is the authenticity of the analyzed material; the participants had the freedom to write their life story without a given structure, which led to autonomous and highly personal accounts of their lives. Also, the narratives themes agency and communion were studied in different qualities (fulfillment, lack and excess of the theme) and not treated as a single factor.

This study may have some clinical implications. First, clinicians may explicitly pay attention to patients' perceived ability of agency and communion, and which experiences may enhance agency and communion that may further their recovery. Second, therapeutic approaches that directly focus on agentic qualities, such as emotion regulation skills and problem solving skills are recommended. Third, directly improving the quality of relations of patients with PDs may be an important element to focus on for treatment, as patients with PDs are known to have difficulties with building trust and stability in relationships (28). Fourth, stronger agentic qualities and supporting relationships may help patients with PDs to overcome the lasting influence of difficult and painful experiences in the past. Finally, the reconstruction of the narrative identity in patients with PDs may provide these individuals with understanding and acceptance of their past, and a sense of purpose and new perspectives regarding their present and their future.

## Data availability statement

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

## Ethics statement

The studies involving human participants were reviewed and approved by the ethical review board of the University of Twente, the Netherlands. The patients/participants provided their written informed consent to participate in this study.

## Author contributions

SP, FS, and GW contributed to the conception and design of the study and wrote sections of the manuscript. FS and SP organized the database and performed the statistical analysis. SP wrote the first draft of the manuscript. All authors contributed to manuscript revision, read, and approved the submitted version.

## 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

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# The development of narrative identity in the psychodynamic treatment of avoidant personality disorder: A case study

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Avoidant personality disorder (AvPD) is characterized by feelings of shyness, inadequacy, and restraint in intimate relationships and has been associated with a disturbance in narrative identity, which is the internalized and evolving story of past, present, and future experiences. Study findings have indicated that an improvement in overall mental health through psychotherapy may increase narrative identity. However, there is a lack of studies incorporating not only the examination of narrative identity development before and after psychotherapy but also within psychotherapy sessions. This case study examined the development of narrative identity in short-term psychodynamic psychotherapy treatment of a patient with AvPD, using therapy transcripts and life narrative interviews before, after, and 6 months following treatment termination. Narrative identity development was assessed in terms of agency, communion fulfillment, and coherence. Results showed that the patient's agency and coherence increased over the course of therapy, whereas communion fulfillment decreased. At the six-month follow-up, agency and communion fulfillment increased, whereas coherence remained stable. The results of this case study suggest that the patient's sense of narrative agency and ability to narrate coherently improved after undergoing short-term psychodynamic therapy. The decrease of communion fulfillment during psychotherapy and later increase after termination suggests that the patient became more aware of conflictual patterns in their relationships, therefore realizing that their wishes and desires were not being fulfilled in their current relationships. This case study displays the possible impact short-term psychodynamic therapy may have by helping patients with AvPD develop a narrative identity.

KEYWORDS

**avoidant personality disorder, narrative identity, agency, communion fulfillment, coherence, short-term psychodynamic psychotherapy, case study**

## 1. Introduction

Previous narrative research has identified disturbances in narrative identity of individuals with personality disorders (PD) (1–3). Whilst most studies have mainly focused on general features of PDs or specifically on borderline personality disorder (BPD) (3), avoidant personality disorder (AvPD) has been largely neglected, despite its high prevalence, mortality rate, and degree of subjective impairment (4). Furthermore, there remains an ongoing debate on which elements of narrative identity may change through psychotherapy. Moreover, there is a lack of research incorporating not only the examination of changes in narrative identity

before and after psychotherapy but also within psychotherapy sessions. Finally, most studies also do not to include a follow-up examination to determine how long-lasting changes in narrative identity are after treatment termination.

The present case study aims at investigating the development of the narrative identity of a patient with AvPD. For this examination, life stories before, after, and 6 months following short-term psychodynamic treatment and narratives within psychotherapy sessions from therapy transcripts are utilized to identify changes in agency, communion fulfillment, and coherence. We will first illustrate the importance of examining AvPD, then introduce the concept of narrative identity in terms of agency, communion fulfillment and coherence, and finally outline past research findings regarding disturbances in narrative identity of patients with personality disorders as well as changes in narrative identity through psychotherapy.

Avoidant personality disorder is a severe disorder characterized by social inhibition, hypersensitivity to negative evaluation by others, and feelings of inadequacy (5). The community prevalence rate for AvPD, including men and women, lies at 3.3% (6), while it is estimated that AvPD as a comorbid disorder is diagnosed up to 14.7% in psychiatric outpatients (4). However, most people diagnosed with AvPD usually receive treatment for depression, anxiety, or psychosis, and it may be the case that inpatient treatment may even overlook the symptoms of AvPD in clinical settings. Many cases of AvPD treatment focus on treating social fears (7). Furthermore, AvPD has also been linked to a high rate of morbidity, making it of high clinical and research interest (6). Compared to other personality disorders (PD), it was found that AvPD had the highest rate of impairment in daily functioning (8). However, despite its high prevalence and subjective impairment, AvPD is severely understudied, especially in the research field of narrative identity (3).

*Narrative identity* is defined as the internalized and further evolving story of the self, which an individual constructs through self-reflection and meaning-making of their own life e.g., (9–11). As narrative identity has been related to mental health and psychological well-being (12), various research has been conducted on examining individual differences in personal stories e.g., (13–15). A variety of elements characterizes narrative identity, among others, motivational elements such as agency and communion (16, 17), as well as structural elements such as coherence (14, 18, 19).

According to McAdams et al. (20), agency is considered one of the central thematic clusters in personal narratives and life stories. The theme of agency represents the individual's perception of their achievements, mastery, autonomy, and ability to influence circumstances and the course of their own life; thus, it is viewed as a central element that provides information to what degree an individual experiences a sense of meaning and purpose.

Communion is considered the second major motivational thematic cluster, next to agency. Communion represents the degree to which an individual's narrative portrays experiences of interpersonal connection and harmony with others (21). Narratives high in communion emphasize motivation for love, attachment, belongingness, and friendship (20) and have been related to higher well-being in previous studies (22). Communion fulfillment refers to whether or not communal needs and desires are fulfilled (1).

Furthermore, the ability to deliver a highly coherent narrative of past experiences is associated with how well an experience has been dealt with (23–25). Thus, coherently structured stories are associated with having worked through and moved on from an experience (26). Furthermore, narratives regarded as organized, detailed, and elaborative have previously been associated with greater well-being and fewer psychiatric disturbances (1, 14, 27).

Studies investigating changes in narratives have shown that narratives naturally change throughout the lifespan (28). Furthermore, significant others, such as family members, may also co-author narratives and influence the development of narrative identity (29–31). Despite narrative identity changing over time, an intense examination of narratives regarding past experiences through psychotherapy may also lead to changes in narrative identity: A therapist may be perceived as a "special" co-author, who influences the change on narratives more intensively with the use of different technical means (32). For example, theoretical assumptions from psychoanalytic ego psychology suggest, that neurotic defense-related distortions may lead to narratives being incomprehensible, implausible, or contradictory (33). The therapist's work involves clarifying unclear details and implications of narratives with the patient as well as confronting contradictions and missing or unclear motives in order to reconstruct a more coherent story. According to Schafer (33) and Argelander (34), unconscious conflicts evolve around desires; therefore, conflictual motives are omitted and hidden in the autobiographical narratives of patients. This may result in a construction of the life story in which the patient is portrayed as not being agentic or responsible but instead views him-or herself as a passive victim of circumstances. Therefore, psychodynamic work aims at helping the patient create a life story in which they perceive themselves as agentic and responsible for their lives (32).

Many studies have illustrated the role of disturbances in narrative identity within personality disorders. While previous research has focused on borderline personality disorder (BPD) or general PD features, little attention has been drawn to AvPD.

When comparing the theme of agency in the life story interviews of BPD patients with those of matched community control participants, patients with BPD had low agency scores which were expressed through passivity, low mastery, and victimization (1, 35). A qualitative study examining BPD patients' life stories revealed themes of low self-worth and struggling with gaining control over emotions, behavior, and purpose in life (36). Furthermore, Gilbert et al. (37) examined life story interviews with people who had manifested features of PD. Findings showed that many expressed a sense of powerlessness and inability to initiate change, indicating an association between PD and low agency.

Previous studies have also found that individuals with a BPD diagnosis or PD features did not indicate less need for communion. Instead, communal themes were described as less fulfilling, illustrating low communion fulfillment. During life story interviews, patients reported experiencing complex family dynamics, neglect, and feelings of being different or distant from others. Many individuals also reported struggling with developing trusting relationships (1, 37, 38).

Regarding narrative coherence, previous research suggests that the life stories of people with BPD features are lower in overall coherence (1) compared to narratives of matched controls. Similarly, the findings of Lind et al. (39) suggest an association between lower narrative coherence in life stories and elevated features BPD among inpatient adolescents. Life stories of individuals struggling with BPD have been

characterized by less integration of the current self and less meaning-making, resulting in overall lower narrative coherence (40).

However, most studies mainly focus on BPD or PD features (3), and there is a lack of research conducted on examining the narrative identity disturbances of participants with AvPD. A qualitative study (41) examining narratives of everyday life struggles told by 15 AvPD patients found that thwarted themes of agency and communion fulfillment characterized narratives. Individuals described a fleeting sense of self in which they felt they were not in control of their lives and were constantly doubting themselves and their ability to initiate change. Furthermore, Individuals struggled with a longing for a connection with others while also dreading interpersonal relationships and were inclined to isolate themselves instead of fulfilling their communal needs.

A case point delivered by Lind et al. (42) examined narratives of the life story interview of a patient with AvPD and comorbid BPD. These narratives were also characterized by thwarted agency. The patient described himself as unable to reach his goals and portrayed himself as a passive victim of external events and circumstances. Furthermore, narratives included many communal themes but were associated with low levels of communion fulfillment, as the patient's longing for relationships had been repeatedly dissatisfied. It is suggested that these struggles portrayed in the patient's narratives may be treated with a narrative-repair-focused treatment (42).

Previous findings suggest that individuals who undergo psychotherapeutic treatment display changes in their life stories and narratives before and after as well as over the course of treatment. However, there remains an ongoing debate which elements of narrative identity may change through psychotherapy. Furthermore, studies have used differing forms of methods to examine these changes. Moreover, previous research has mainly focused on patients with BPD, and to our knowledge no studies have yet been conducted with patients suffering from AvPD only.

A study conducted by Adler (22) examined personal narratives of 47 adults, which were written prior to the beginning and after every psychotherapy session over a period of 12 weeks. Participants were concurrently measured for mental health. Narratives were examined for themes of agency and coherence to capture narrative identity in terms of purpose and unity. Results indicated that agency increased over the course of psychotherapy, whereas coherence did not. Increases in agency were significantly related to overall improvements in participants' mental health. Furthermore, findings also revealed that changes in the theme of agency occurred prior to improvements in overall mental health. However, this study did not examine psychotherapy transcripts but instead asked participants to write narratives evaluating their current psychotherapy session. These narratives may not have been narrative in nature but instead, portray a more filtered form of narration. The missing increase in coherence was attributed to the fact that the narratives examined in this study regarded experiences of the present day. In contrast, most studies have examined coherence in narratives of retrospective accounts. It was therefore suggested that an increase in coherence occurred over time and was not due to psychotherapy. It was also pointed out that the overall course of coherence, whether that may be an increase or a decrease, could be linked to individual differences. However, narratives were written instead of verbally told. The act of writing narratives itself has been previously linked to improvements in psychological well-being (25). Therefore, these narratives do not truly represent the effects of psychotherapy on narrative identity.

In contrast, other studies examining changes in narrative coherence through psychotherapy treatment have found patients with posttraumatic stress disorder and schizophrenia to report more coherent trauma narratives (43) or life stories (44) after psychotherapy. Furthermore, the findings of a case study by Lysaker et al. (45) also demonstrated that the told narratives of a schizophrenic patient within psychotherapy sessions became more coherent over the course of treatment.

Research investigating changes in narrative identity of patients with PD features through psychotherapy has been scarce and has merely focused on BPD. Lind et al. (35) investigated whether a 12-month psychotherapy treatment would affect how BPD patients narrated their personal life stories and that of their parents during life story interviews. After treatment termination, BPD patients' life stories had increased significantly in themes of agency, whereas no significant changes were found in terms of communion. However, no follow-up examination was conducted in this study. Regarding narrative coherence, Levy et al. (46) found that narratives derived from an Adult Attachment Interview of BPD patients were significantly more coherent after 12 months of transference-focused treatment.

Despite an abundance of research on narrative identity and its interplay with personality psychopathology and psychotherapy, there remains a lack of agreement on whether psychotherapy may contribute to an increase in narrative coherence and communion fulfillment. In addition, AvPD has been largely neglected in narrative identity research, especially regarding disturbances in narrative coherence and changes in narrative identity due to psychotherapy treatment. Furthermore, there is a lack of research incorporating not only the examination of changes in narrative identity before and after psychotherapy but also within psychotherapy sessions.

Finally, many studies have not conducted a follow-up examination to determine how long-lasting changes in narrative identity are after psychotherapy. Thus, this qualitative case study aims to examine the development and change of an AvPD patient's narrative identity within psychotherapy sessions as well as before, after, and 6 months following short-term psychodynamic psychotherapy (STPP). The study inquires whether narrative identity in psychotherapy sessions and the patient's life story will increase in terms of agency, communion fulfillment, and coherence after undergoing STPP. Moreover, the present study investigates whether changes remain stable in a 6-month follow-up.

We hypothesized that the patient's narratives within psychotherapy sessions will increase over the course of treatment in agency (H1), communion fulfillment (H2), and coherence (H3). We also expected that the life stories of the patient after STPP and 6 months following treatment termination will be higher in agency (H4), communion fulfillment (H5), and coherence (H6) when compared to the life story before treatment.

# 2. Methods

## 2.1. The patient

The patient in question was 28 years old at the beginning of therapy, seeking treatment because of issues at work and also due to

excessively struggling with a previously failed relationship. The patient had recently started her first job after graduating from university. She appeared somewhat shy and anxious in contact but reported openly and visibly motivated about her problems and biography. She reported not being successful at setting boundaries or demanding things for herself. In her workplace, she had recently burst into tears several times due to feeling overwhelmed. She also mentioned that she often suffered from feelings of guilt. The patient had no previous psychotherapeutic experience.

## 2.2. Procedure

Data used in this study were derived from a pilot study conducted for psychotherapy research by doctoral student Daniel Fesel. The original study was designed to collect data on a wide spectrum of psychological disorders. Two patients took part in the pilot study: The first patient was an abstinent alcoholic who suffered from panic attacks and nightmares. The second patient was diagnosed with AvPD and is the patient of this case study. This particular case study was selected for further examination due to the patient's diagnosis and the lack of research on changes in narrative identity of individuals with AvPD. The present study will only use data regarding one of the cases from the pilot study, namely all life story narratives collected at interview time points, therapy transcripts, and questionnaire data. All assessments were conducted in German, including narrative interviews, therapy sessions, and questionnaires.

After seeking treatment at a psychodynamic outpatient clinic, the patient received several consultation sessions. In the third session, the psychotherapist offered the patient a STPP treatment consisting of 24 sessions on the condition that she participates in the psychotherapy study, which was approved by the JGU's Ethics Committee in December 2017. In the fourth session, the patient expressed her willingness to participate in the study and signed a written consent form. After three more probationary sessions, the psychotherapy application was approved by the patient's health insurance. The patient had therefore received a total of seven probatory sessions. During this period, the patient participated in the pre-interview (T1), which included a diagnostical examination, a test battery, and a narrative interview. The diagnostical examination consisted of the Structural Clinical Interview for the DSM (SCID-I and SCID-II) (47) which an external diagnostician conducted on two dates. In the narrative interview, which a separate diagnostician conducted, the patient was asked to write seven life events on index cards and then to tell her life story without interruption, taking these seven events into account. The instruction was the same for all interviews. The patient could, therefore, include other or the same events in her life story during the follow-up interviews. In addition, the patient filled out a test battery during the same period, which included questionnaires examining depressive symptoms (BDI-II) (48), psychological distress and psychiatric disorders (BSI) (49), personality dysfunction (OPD-SQS) (50), and difficulties in interpersonal relationships (IIP-32) (51). Per the SCID-I interview, the patient was diagnosed with generalized anxiety disorder and somatization disorder. According to the SCID-II, she was diagnosed with an AvPD.

At the beginning of therapy, the male therapist had a license to practice psychodynamic psychotherapy, which he had received at a recognized psychoanalytic training institute. Including the practical activities during the training, the therapist had 4.5 years of practical experience at the time of the study's baseline.

The 24 sessions of the STPP took place once a week in a seated setting with some interruptions, such as holidays. Contemporary psychodynamic psychotherapy is based on therapeutic approaches derived from traditional psychoanalytic theory and therapy (52). However, this form of psychotherapy focuses less on the personal past and more on present-day conflicts. Moreover, psychodynamic psychotherapy explores the patient's unconscious conflicts, past relationship experiences, and how their personality and previous coping mechanisms have contributed to the manifestation of their symptoms. A focal aim is identified and central conflicts that are present in the here-and-now and are associated with current manifested symptoms are worked through (52, 53).

After every fourth session, the Outcome Questionnaire 45 (OQ-45) (54) measuring the patient's symptom severity and, therefore, the progress of therapy, was filled out by the patient. The duration from the first to the last therapy session resulted in 40 weeks. All probatory and therapy sessions were audio-recorded; however, due to missing or faulty recordings, the 18th and the 24th therapy sessions were unavailable as audio recordings.

Two weeks after the last therapy session, the second narrative interview, the post-interview (T2), took place, in which the patient filled out the questionnaire battery and took part in the narrative interview. The pre-and post-interview took place 11 months apart. Six months after the termination of psychotherapy, the patient took part in the last narrative interview, the follow-up-interview (T3), with an analogous structure to the pre-and post-interview, and for the final time, filled out the test battery. Each of the three interviews was conducted by different diagnosticians. All three interviewers and diagnosticians conducted blind assessments. They were not aware of any information established in other interviews, within psychotherapy treatment, and were also not aware of the hypotheses of the study.

## 2.3. Case illustration

### 2.3.1. Interview test battery

All material descriptions for the clinical assessment used during the interview test battery are listed in Table 1.

#### 2.3.1.1. BDI-II

The patient's depressive symptoms were assessed with the BDI-II (48). The patient's BDI-II scores at each interview time point are illustrated in Figure 1. Before starting STPP, the patient scored 20 on the BDI-II in the pre-interview, reaching the threshold marking moderate depressive symptomatic. The patient's BDI-II score at treatment termination had decreased to a score of 10, meaning the amount of reported depressive symptoms was clinically unremarkable. At the follow-up interview, the patient's BDI-II score had further decreased to 8, remaining clinically unremarkable.

#### 2.3.1.2. BSI

The patient's psychological distress and psychiatric disorder symptoms were assessed with the BSI (49). All BSI scores at all interview time points are presented in Table 2. Before the beginning of therapy, the patient had an overall global score of 71, which is considered a clinically relevant level of psychological distress. The

TABLE 1 Descriptions for the clinical assessments within the interview test battery.

| Materials | Description |
|---|---|
| Becks depression inventory (BDI-II) | The becks depression inventory (BDI-II) (48) includes 21 items and assesses the severity of depression symptoms on a 4-point scale ranging from 0 to 3. This tool is not used for diagnostic purposes but instead serves as a screening tool. Higher scores indicate more severe depressive symptoms. The self-questionnaire has multiple cut-off ranges: 0–13 is considered the range for none to minimal symptoms of depression; 14–19 stands for mild depression; 20–28 for moderate depression; and 29–63 for severe depression. The questionnaire has a high degree of internal consistency ($a = 0.84$) (55) |
| Brief symptom inventory (BSI) | The brief symptom inventory (BSI) (49) includes 53 items and is a self-report measurement used for the screening of psychological distress and psychiatric disorders and is used to monitor treatment progress and assess treatment outcome. Level of distress during the past week is assessed on a five-point Likert scale (ranging from 0 = "not at all" to 4 = "extremely"). Nine primary symptom dimensions are measured: Somatization, Obsession-compulsion, Depression, Anxiety, Interpersonal sensitivity, Hostility, Phobic anxiety, Paranoid ideation, and Psychoticism. In addition, a Global Severity Index based on all 53 items provides an overall score across all nine domains. All scores are transformed into T-scores. T-Scores equal or above 63 are viewed as clinically relevant. The Global Severity Index ($a = 0.97$) has an excellent degree of internal consistency. The dimensions Somatization ($a = 0.85$), Obsession-compulsion ($a = 0.84$), Interpersonal sensitivity ($a = 0.85$), Depression ($a = 0.88$), Anxiety ($a = 0.86$), Hostility ($a = 0.81$), and Paranoid ideation ($a = 0.81$) have a high degree of internal consistency. Furthermore, the dimensions of Phobic anxiety ($a = 0.78$) and Psychoticism ($a = 0.73$) have a satisfactory degree of internal consistency (56) |
| OPD-structure questionnaire short version (OPD-SQS) | The OPD-structure questionnaire short version (OPD-SQS) (50) is a 12-item screening tool for personality dysfunction, which is used in planning or assessing change throughout psychotherapy on a five-point Likert scale (ranging from 0 = "fully disagree" to 4 = "fully agree"). The questionnaire includes three personality domains: self-perception, relationship model, and contact design. The domain of self-perception entails to what degree the self is equipped with structural skills and emotion regulation. The domain relationship model encompasses to what degree representations of past relationships, associated with expectations for new relationships, are dysfunctional. The domain contact design portrays skills in interpersonal contact with respect to self-insecurity. Higher scores illustrate a higher level of personality dysfunction. The questionnaire has a high degree of internal consistency ($a = 0.88$) (50) |
| Inventory of interpersonal problems (IIP-32) | The short form of the inventory of interpersonal problems (IIP-32) (51) includes 32 items and is a self-assessment tool that captures difficulties and sources of distress within interpersonal relationships. It is used to assess psychotherapy progress on a five-point Likert scale (ranging from 0 = "not at all" to 4 = "extremely"). Items are phrased in two ways: difficulties are either experienced as things individuals do "too much" of or things individuals find "too hard". Eight primary interpersonal behavior domains are assessed: Domineering/Controlling, Vindictive/Self-Centered, Cold/Distant, Socially Avoidant/Inhibited, Nonassertive, Overly Accommodating/ Exploitable, Self-Sacrificing/ Overly Nurturant, and Intrusive/Needy. A sum score based on all 32 items provides an overall score across all eight domains. All scores are transformed into stanine points. Stanine points above six are viewed as clinically relevant. The IIP-32 global score ($a = 0.93$) and the domain Vindictive/Self-Centered ($a = 0.92$) have an excellent degree of internal consistency. The domains Cold/Distant ($a = 0.84$), Socially Avoidant/ Inhibited ($a = 0.89$), Nonassertive ($a = 0.86$), and Self-Sacrificing/Overly Nurturant ($a = 0.80$) have a high degree of internal consistency. Furthermore, the domains Domineering/Controlling ($a = 0.73$), Overly Accommodating/Exploitable ($a = 0.78$), and Intrusive/Needy ($a = 0.76$) have a satisfactory degree of internal consistency (57) |
| Outcome questionnaire 45 (OQ-45) | The outcome questionnaire 45 (OQ-45) (54) is a 45-item self-report questionnaire measuring overall distress and used to assess psychotherapy progress in adults on a five-point Likert scale (ranging from 0 = "never" to 4 = "almost always"). It is not used for diagnostic purposes but instead as a screening tool. Overall distress is measured in three domains: Symptom distress, interpersonal relationships, and social role. The domain symptom distress measures the degree of subjective distress from symptoms. The domain of interpersonal relationships measures the degree of dysfunctionality in interpersonal relationships. The domain social role measures the degree of dysfunctionality at work and in other social roles. All three domains are summed up to an overall distress score. Higher scores indicate a higher degree of disturbance and distress for an individual. The questionnaire has an excellent degree of internal consistency ($a = 0.94$) (58) |

patient had scored significantly high on all symptom domains apart from Somatization. After treatment termination, the patient's BSI score remained the same; however, only the following symptom domains had reached the cut-off score: Obsession-compulsion, Anxiety, Hostility, Phobic anxiety, and Paranoid ideation. At the follow-up interview, the patient's BSI score had decreased to an overall global score of 60, illustrating a non-clinically relevant level of psychological distress. Hostility and Phobic anxiety were the only two domains in which the patient's score remained clinically significant.

#### 2.3.1.3. OPD-SQS

The patient's personality dysfunction was assessed with the OPD-SQS (50), with which the following domains are measured: self-perception, relationship model and contact design. All OPD-SQS domain scores for each interview time point are illustrated in Figure 2. Before starting treatment, the patient scored high on dysfunctional self-perception with a score of 14, contact design with a score of 13, and moderately high on relationship model with a score of 12. After treatment termination, the patient's self-perception score had decreased to a moderately high score of 12. In contrast, the patient's contact design score post-treatment had largely decreased to 7. The relationship model score had increased to a score of 13. At the follow-up interview, the patient's self-perception score had largely decreased to a score of 7. In contrast, contact design had increased to a moderate score of 10, and the relationship model score had decreased to a moderate score of 11.

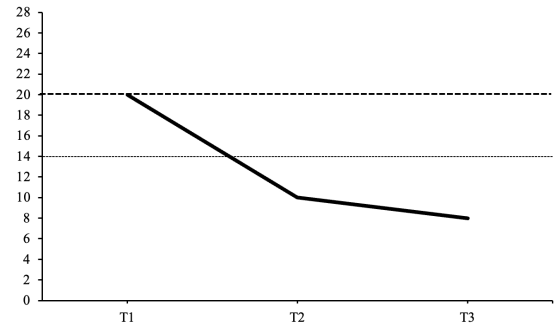


FIGURE 1
Back's depression inventory-II scores at each interview time point. This graph displays the patient's BDI-II scores at each interview time point. T1, pre-interview; T2, post-interview; T3, follow-up interview; 0–13, clinically unremarkable; 14–19, mild depression; 20–28, moderate depression; 29–63, severe depression. The scale initially ranges from 0 to 63. Dashed lines represent the cut-off thresholds for mild and moderate depression.

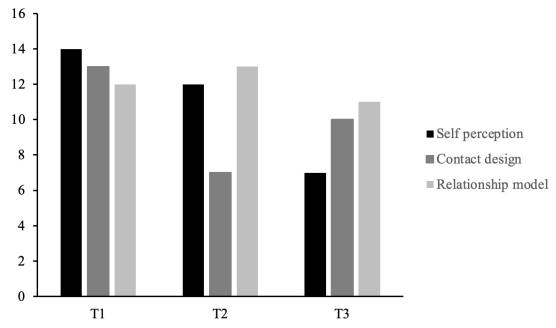


FIGURE 2
OPD-SQS domain scores at each interview time point. This graph illustrates the patient's OPD-SQS scores for the domains self-perception, contact design and relationship model at each interview time point. T1, pre-interview; T2, post-interview; T3, follow-up interview.

TABLE 2 BSI scores at each interview time point.

| | Interview time point | | |
|---|---|---|---|
| | T1 | T2 | T3 |
| Somatization | 56 | 59 | 52 |
| Obsession-compulsion | **64** | **66** | 62 |
| Interpersonal sensitivity | **65** | 61 | 52 |
| Depression | **68** | 49 | 57 |
| Anxiety | **64** | **69** | 59 |
| Hostility | **66** | **72** | 63 |
| Phobic anxiety | **73** | **70** | **70** |
| Paranoid ideation | **65** | **69** | 54 |
| Psychoticism | **70** | 59 | 54 |
| Global Score Index | **71** | **71** | 60 |

T1, pre-interview; T2, post-interview; T3, follow-up interview. All scores are presented as T-scores. Scores equal or greater 63 are in bold and considered clinically relevant.

#### 2.3.1.4. IIP-32.

The patient's difficulties in interpersonal relationships were assessed with the IIP-32 (51). All IIP-32 scores at all interview time points are presented in Table 3. Before the beginning of therapy. The patient had an overall score of 9, which is considered a clinically relevant level of distress within interpersonal relationships. The patient had scores significantly high in all interpersonal domains. After treatment termination, the patient's overall score decreased to 7, remaining in the clinically relevant range; however, only the following interpersonal domains had reached the cut-off score: Nonassertive, Overly Accommodating/Exploitable, and Self-Sacrificing/Overly Nurturant. At the follow-up interview, the patient's IIP-32 score remained the same. The following interpersonal domains had reached the cut-off score: Socially Avoidant/Inhibited, Overly Accommodating/Exploitable, and Self-Sacrificing/Overly Nurturant.

#### 2.3.1.5. OQ-45

The patient's symptom severity was measured with the OQ-45 (54). Overall distress is measured in three domains: Symptom distress, interpersonal relationships, and social role. All three domains are summed up to an overall distress score. All OQ-45 scores throughout therapy are illustrated in Figure 3. At the beginning of treatment, the patient's overall distress is significantly high, with a score of 72 after the fourth therapy session. After the eighth therapy session, the patient's distress levels decrease just below the cut-off threshold with a score of 62. During the middle period of therapy, the patient's distress levels remain stable and clinically insignificant, with a score of 50 in sessions 12 and 16. Towards the end of STPP, the patient's scores decrease slightly to a score of 48 in session 20 and a score of 47 in session 24, remaining clinically insignificant.

### 2.3.2. Psychodynamics

Before discussing the patient's psychodynamics in the research group, all interviews and therapy sessions were transcribed verbatim by research assistants following the basic version of GAT transcription rules (59). All identifying information (e.g., names, occupation) were replaced by pseudonyms.

To establish the patient's psychodynamics, the research group including two psychology master's students and a doctoral student with psychotherapeutic experience met weekly for eight discussion meetings of one and a half hours. During these weekly discussions, four therapy transcripts were read, and the content was discussed, with the goal of understanding the course of the patient's psychotherapy and carving out the patient's psychodynamics. In addition to the therapy transcripts, the therapist presented the group with a written summary of the course of therapy and the psychodynamic impressions of the patient in form of an epicrisis. The discussion group took all data including all interviews and questionnaires into account when establishing the patient's psychodynamics.

During the pre-interview and probatory sessions, the patient expressed the wish to become better at setting boundaries and being able to say no to others. She reported difficulties in asserting her needs and interests toward others. When not fulfilling the needs of people in her life, the patient experienced inexplicable feelings of guilt. Furthermore, the patient described herself as a person who pays much attention to how others might think about her, therefore trying to please others while not considering what she might want instead. The

TABLE 3 IIP-32 scores at each interview time point.

| | Interview time point | | |
|---|---|---|---|
| | T1 | T2 | T3 |
| Domineering/controlling | **8** | 6 | 6 |
| Vindictive/self-centered | **7** | 4 | 5 |
| Cold/distant | **7** | 5 | 5 |
| Socially avoidant/inhibited | **9** | 6 | **8** |
| Nonassertive | **9** | **8** | 6 |
| Overly accommodating/exploitable | **8** | **8** | **8** |
| Self-sacrificing/overly nurturant | **7** | **8** | **9** |
| Intrusive/needy | **7** | **6** | 6 |
| Overall score | **9** | **7** | **7** |

T1, pre-interview; T2, post-interview; T3, follow-up interview. All scores are presented as Stanine-scores. Scores greater 6 are in bold and considered clinically relevant.

patient explained that she had never learned to argue or stand up for herself, addressing this as her main goal for her upcoming psychotherapy treatment.

Throughout psychotherapy and during further discussion in the research group, the following psychodynamics were established: The patient suffered early developmental deficits resulting from her birth complications and following necessary treatment, as well as growing up under the strong influence of her anxious parents. The patient reported experiencing the impression of a stigma or deficit since childhood: the feeling of progressing slower than others, which resulted in persistent feelings of shame. This affected her social skills, making her quiet, shy, and inhibited. During treatment, the patient displayed insecurity about her identity and low self-esteem. These insecurities were expressed, for example, in her shyness towards conflict and a rather underdeveloped integration of aggressive impulses. When experiencing anger in conflictual situations at work, she helplessly bursts into tears and feels ashamed afterward. The patient strongly tended to feel guilty but behaved accusingly and passive-aggressively towards others. She feared that other people would react harshly and punitively to her mistakes. She perceived herself in a negatively distorted way and was afraid of appearing too aggressive when standing up for herself. The patient also exhibited an over-demanding self-ideal, which was expressed in an exaggerated urge to solve the problems of others and feeling guilty when taking time off from work. Due to the patient being insecure regarding her identity and suffering from low self-worth, the patient remained passive and submissive in her relationships, for example, by putting herself in a dependent position in her failed relationship and allowing herself to be dominated or by almost always agreeing with the therapist. Throughout therapy, she revealed a desire for a stable romantic relationship in which all facets of her personality are accepted, especially those she devalues.

## 2.4. Narratives

All narratives within the therapy transcripts were identified by a previous master's student (60) who had identified all narratives in the therapy transcript based on an unpublished manual (61). Narratives were identified based on Labov's definition, namely that a narrative must contain at least two narratives clauses separated by a temporal junction. Narrative clauses consist of a report of events reflecting the order in which these events took place. Therefore, narrative clauses report an event with a definable beginning and end. Furthermore, the order in which narrative clauses are told may not be altered without changing the meaning of the reported event (62).

### 2.4.1. Narrative coding

Further narrative coding was to be conducted for the life stories of all three interviews and narratives from the psychotherapy transcripts. Before randomly choosing narratives for further coding, all transcripts were read and discussed in a research group to understand the patient's issues and psychodynamics better. As the patient's struggles primarily evolved around interpersonal relationships and romantic relationships were a key motive throughout the patient's STPP, all narratives revolving around romantic relationships were identified in the listing provided by Kinder (60). Five sessions in total were chosen, in which two randomly chosen narratives in which the patient narrated an experience in romantic interpersonal relationships. This resulted in a coding of 10 narratives from the therapy transcripts: four narratives from the first third of therapy (from sessions two and five), two narratives from the second third of therapy (from session 14), and finally, four narratives from the last third of therapy (from sessions 17 and 23). For further coding, all 10 narratives from the therapy transcript and the life story narratives were propositioned in main-and sub-clauses.

For all narratives, coding was conducted by theme: every narrative was coded for agency, then communion fulfillment, and finally for all coherence dimensions. This meant that each narrative received six separate readings throughout the coding process. An average score for each of the three narrative identity dimensions was calculated for each narrative and then for each session. Concerning the life story, each of the seven individual life story events was coded separately, and a mean narrative identity score was calculated for the whole life story. The following utilized coding schemes were used due to previous researchers achieving high inter-rater reliability (1, 22, 35).

A master's student in psychology served as a master coder and coded all interview and therapy session narratives. The master coder was not blinded during coding since the entire working group had used a bottom-up approach by first reading all transcripts, working out all central themes, and finally developing the hypothesis before starting the coding process. In a separate step, a PhD-student recoded all narratives as a reliability coder, making use of the master coder's prepared coding segments (63).

#### 2.4.1.1. Agency

The agency coding system by Adler et al. (64) is used to measure agency in narratives with the help of a five-point Likert scale ranging from 0 to 4. Higher scores indicate a higher degree of agency. A narrative in which the protagonist is completely powerless, at the mercy of circumstances, and all action is motivated by external powers is scored with 0. A narrative that portrays the protagonist as largely at the mercy of circumstances and in which the control of the plot is primarily in the hands of external powers is rated with 1. A narrative in which the protagonist is neither entirely in control nor entirely at the mercy of circumstances receives a score of 2. A narrative in which the protagonist is able to affect actions, initiate change, or has some

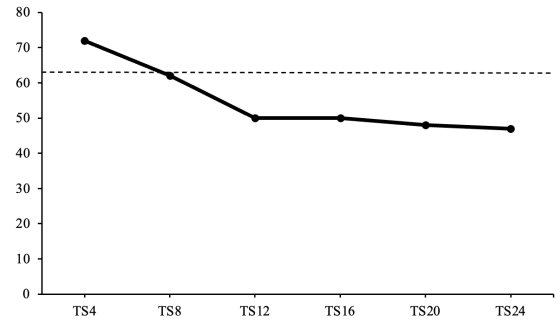


FIGURE 3
OQ-45 scores over the course of treatment. This graph displays the patient's OQ-45 scores over the course of treatment. TS, therapy session. Dashed line represents the cut-off threshold at score 63.

degree of control over circumstances is rated with 3. These narratives may or may not include a portrayal of previous agentic struggles. A narrative in which the protagonist reports having struggled to overcome an agency-threatening experience and describes themselves as empowered or victorious is rated with 4. These narratives include themes of self-insight, gaining control over a situation, or experiencing an increase in power.

For both life narratives (*ICC* = 0.94) and therapy session narratives (*ICC* = 0.86), excellent inter-rater reliabilities were achieved (65).

#### 2.4.2.1. Communion fulfillment

Adler et al. (1) communion fulfillment coding system measures communion fulfillment in personal narratives and consists of a 3-point scale ranging from 0 to 2. The coding system of communion fulfillment goes further to examine whether there is an absence or presence of communion motivation. It instead also examines to what degree the protagonist is successful in satisfying their motivational needs and desires in interpersonal relationships. Since narratives chosen from the psychotherapy transcripts evolved around interpersonal relationships, rating the presence or absence of communal motivations was unnecessary. However, in the case of the life story narratives, narratives were rated with 0 for the absence and 1 for the presence of communal motivations. In case no communion was recorded, the narrative did not receive a score for communion fulfillment. Narratives in which there was no indication of having one's communion needs met were scored with 0. Narratives in which communion needs were being met to some degree were scored with 1. Narratives in which the protagonist's communion needs were met to a high degree were scored with 2.

For both, life narratives (*ICC* = 0.94) and therapy session narratives (*ICC* = 0.84), excellent inter-rater reliabilities were achieved.

#### 2.4.2.2. Coherence

The narrative coherence coding system (14) is a rating scale used to measure coherence in life-story accounts. This coding system has been used before to assess the coherence of psychotherapy stories (66). Coherence is conceptualized along four dimensions: orientation, structure, affect, and integration. Each dimension is rated along a 4-point scale ranging from 0 to 3. Higher scores indicate a higher degree of coherence. All four dimensions were summed up to an average coherence score.

*Orientation* is defined as the extent to which the narrator specifies background information to understand the story's context. This includes introducing main characters, locations, and actions and situating the narrative in a specific temporal, social, and personal context. *Structure* is defined as the level of temporal sequencing within the story (Figure 4). A narrative must therefore include one of the following: an initiating event, an internal response to the event, an attempt, or a consequence. Highly structured narratives follow a temporal sequence of goal-oriented action and present a logical flow of scenes. *Affect* is defined as the extent to which a narrative includes expressive emotion and makes an evaluative point by using affective language. Through the use of expressive emotion, the narrator underlines the importance of the experience being recounted. *Integration* is the degree to which the narrator links the event to larger life themes and meaning. A highly integrated narrative relates the events to the narrator's self-identity or previous autobiographical experiences.

For all coherence scales in the life narratives a good or excellent inter-rater reliability was achieved (orientation *ICC* = 0.66, structure *ICC* = 0.76, affect *ICC* = 0.93, integration *ICC* = 0.89) while in the therapy session narratives all scales reached the classification of an excellent inter-rater reliabilities (orientation *ICC* = 0.89, structure *ICC* = 0.78, affect *ICC* = 0.96, integration *ICC* = 0.85).

## 3. Results

### 3.1. Psychotherapy narratives

#### 3.1.1. Agency

All average agency coding scores for all narratives from the therapy transcripts are illustrated in Figure 5. The first hypothesis predicted that the patient's narratives would increase in agency over the course of psychotherapy (H1).

At the beginning of therapy during the second session, the patient's agency is moderate, with a score of 1.88. These narratives portray the protagonist, to a certain degree, at the mercy of external powers and circumstances. During the second session, the patient describes her past romantic relationships. Before being in a relationship with her ex-partner, she had engaged in sexual intercourse with several men. She describes suffering from ambiguous thoughts concerning her experiences, as she felt she needed to catch up on lost time, but also suffered from feelings of being "cheap" or "used." She describes the following impression she had of herself:

> *Somehow, I sometimes had the feeling that I got [intimate] with someone too quickly or that I was too easy to have […].*

Once she had started dating her former partner, she had told him in a conversation about her past romantic experiences, which he had strongly disapproved of, which led to her criticizing herself:

> *[…] And he [said to me], "yes, when I saw you, I did not think you were like that". And I thought that was pretty harsh. So, I know that I was also hurt by it, but I believed it; I took it that way, that it was something negative and something that was not appropriate, even though I knew that so many people actually did it.*

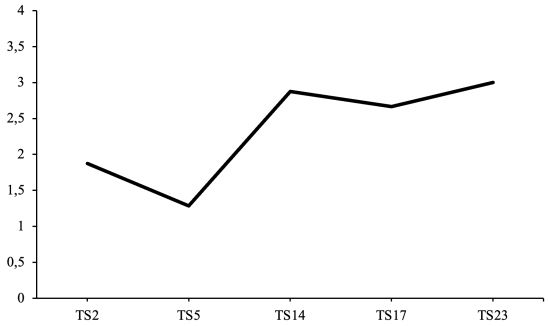


FIGURE 4
Average agency scores over the course of treatment. TS, therapy session.

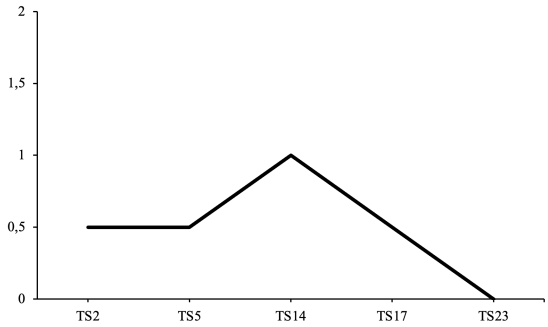


FIGURE 5
Average communion fulfillment scores over the course of treatment. TS, therapy session.

Instead of gaining agency by having actively sought out intimate relationships, the opposite occurs. The patient not only questions her own decisions and needs, but she does not describe herself as someone who wanted to have intimate experiences with others but instead was someone "easy to have." She devalues her own sexual needs and allows her ex-partner to persuade her that her past behavior was inappropriate, even though she states that she believes others have the right to do so. The patient's narratives do not include an agentic description of her seeking out intimate relationships or standing up for herself and her needs. Instead, she portrays herself as someone swayed by others' preconceptions and accusations by criticizing herself for past desires. She does not consider herself in control of her experiences. Instead, she describes herself at the mercy of her needs which she simultaneously condemns due to the prejudices of her ex-partner. Despite her depicting experiences from the past, these narratives also lack insight, in which the patient corrects her past views and regains agency while narrating these events during psychotherapy.

During the fifth session, the patient's agency decreases to a score of 1.29, displaying her as someone who is largely at the mercy of circumstances and that her experiences are primarily in the hands of external powers. The patient reports having issues in a new relationship, in which she has ambiguous feelings towards the man she is dating, as he is also interested in another woman. She describes having the desire to distance herself from him but being unable to do so, and that all her thoughts and emotions are circling the man she is dating, whereas she is unable to act or make a decision to influence her current relationship:

> *I have noticed that I somehow do not get the distance in [..] and that my thoughts revolve around it, and I find it a bit of a shame because I somehow make myself so dependent on the reaction of the other person instead of looking out for myself [..], but all my thoughts always revolve around what he is thinking about, what he is feeling at the moment and I find that a bit of a shame that I am so fixated on that.*

The patient spends the therapy session talking about how she is unable to control her thoughts as she is so emotionally involved with her current partner. She describes herself, including her thoughts and emotions, as primarily controlled by his actions and decisions. Despite wanting to enjoy her time alone or with friends, she is unable to distance herself from the situation or specify what she expects from a relationship. She, therefore, depicts herself as a protagonist with a low agency, as she is at the mercy of his actions and her thoughts.

During the second third of therapy, the patient's agency increases drastically to a moderately high score of 2.88 at session 14. This illustrates that the patient, to a certain degree, describes herself as someone who is able to affect her own life, initiate change and achieve some degree of control throughout her experiences. The patient reports going on holiday alone and getting to know others abroad. She also points out that she was not interested in having romantic encounters but instead decided to seek platonic friendships, with which she was content. She also displays a degree of insight by expressing her struggles with loneliness while traveling by herself:

> *[…] the first evening I was […] restless, I noticed that I did not feel good at all, that [something] was missing, and I noticed [..] that even though traveling alone is actually nice [I realized] that I always need someone to talk to or do something with, because [..] it made me so restless [..] being all on your own, so alone.*

The patient not only acknowledges that she enjoys traveling alone but that she simultaneously feels a high degree of loneliness and restlessness when not having someone to talk to or spend time with. She describes herself as being highly agentic by traveling on her own but also describes being at the mercy of the need to be with others. Therefore, the theme of agency is slightly thwarted by inner struggles with needing others to feel at peace while also trying to be highly agentic by traveling alone. However, the patient also expresses insight into these inner struggles, with which future actions may be influenced, displaying a moderately high agency score.

Furthermore, the patient mentions that she has had contact with her ex-partner and has the impression that she can see more clearly that the breakup was necessary for her, as she felt suppressed by her ex-partner. She claims that now with more distance, she is able to understand that during the relationship, she did not seek out her own needs and did not act in her interest:

> *[…] and now, with such a distance, we can see more clearly that we were simply too different and somehow wanted too many*

> *different things and that it just could not work out. And I was also so deep in it; you hold on so tightly to what you find beautiful that you do not see the other [sides of the relationship].*

The patient, therefore, experienced an insightful moment in which she acknowledged that she was not agentic during the relationship. With this insight, seeking out different relationships can be seen as a goal-oriented action in the future, resulting in an overall increase in agency.

At session 17, nearing the end of treatment, the patient's agency score slightly decreases but remains moderately high, with a score of 2.67. The narratives of this session portray the protagonist as able to affect situations or initiate change to some degree. In one of the narratives, the patient breaks off a relationship in which she realizes that the man she is dating does not want to start a serious relationship. In this narrative, she portrays herself as highly agentic by distancing herself from a relationship in which her needs are not being met:

> *I really want to stay on my own for now and not start [dating] anyone else because I want to concentrate on myself and see that everything is fine with myself first [..] what fulfills me, regardless of the fact whether there is a man with me now […].*

However, the patient depicts her struggles with her sexual desires and needs. In the second narrative, she illustrates her inner struggles with the topic, asking herself whether her upbringing is at fault for her being such a "needy" person. She, however, states that she has ambiguous feelings. She reports that having intimate experiences with others "just happens" but that she is a grown-up woman and can make her own decisions. She is, however, ashamed of seeking out intimate relationships, especially when first stating she wants to be on her own now. Therefore, in this narrative, she is neither highly agentic nor completely at the mercy of external powers; instead, these narratives illustrate a general struggle with the theme of agency.

Towards the end of therapy at session 23, the patient's agency score increases slightly to a score of 3, reaching its peak since the beginning of therapy, portraying her as agentic and able to initiate change. In this session, her narratives evolve around an argument with her ex-partner, in which he insults her for having had intimate relationships with others since their breakup. The patient reports that she understands why he is upset but does not view her behavior as inappropriate, especially as she was not in a relationship with him. She also points out that when they were still together, she would always justify her actions to calm him down. She states that she can still feel the urge to justify her actions but is now aware that she is not in the wrong. Furthermore, she is determined to change her previous behavior by trying to create distance between them. She further reports that she directly told him that she would not tolerate his behavior toward her:

> *[…] last time I said, "if you apologize, we can meet, but you were very hurtful, and if you do not apologize, we will not [meet up again]" […].*

The patient illustrates not only insight but stands up for herself in this situation and is determined to initiate change when it comes to her previous behavior, depicting herself as a protagonist that is in control of the situation and is able to initiate change to some degree.

The first hypothesis was partially supported, as agency increased over the course of psychotherapy, except for decreases in sessions 5 and 17 (H1).

### 3.1.2. Communion fulfillment

All communion fulfillment scores over the course of therapy are illustrated in Figure 6. The second hypothesis predicted that communion fulfillment would increase over the course of psychotherapy (H2).

At the beginning of therapy during the second session, the patient's communion fulfillment is moderately low, with a score of 0.5. The patient depicts experiences in which she is either ashamed of her own needs or in which she feels disapproved of or devalued:

> *[…] somehow, I had the feeling that I could be replaced at any time, so to speak. And it's all about sex […].*

Her communion fulfillment score remains stable at a score of 0.5 during the fifth therapy session, in which she does not feel that her expectations of a relationship are being. She reports being unable to satisfy her needs with her current partner; moreover, she reports being unable to move on and is fixated on him:

> *[…] since then, he has been distant. […] instead of seeing for myself what is good for me at the moment and meeting up with friends, [..] all my thoughts are always [revolving around him], about what he is thinking, what he is feeling at the moment. And I find it a bit of a shame that I'm so fixated on that.*

Towards the second third of the patient's treatment, her communion fulfillment reaches a moderate score of 1 in the 14th session. While traveling abroad, the patient meets new people and seeks conversations with others. However, she also describes herself as restless and lonely when she is on her own:

> *[…] even though travelling alone is actually nice, [I noticed] that I always need someone to talk to or do something with, [it made me so restless] that you're somehow on your own, so alone.*

During this session, she also points out that she realizes that the relationship with her ex-partner was toxic and that she is better off

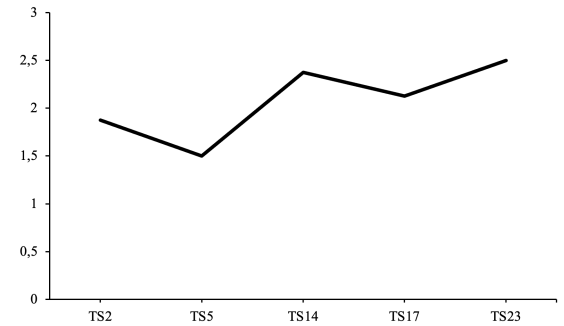


FIGURE 6
Average coherence scores over the course of treatment. TS, therapy session.

since her breakup. She claims that she can now see more clearly that they were not seeking the same thing from a relationship, resulting in both being unhappy.

Towards the last third of therapy, the patient's communion fulfillment score decreases again to 0.5 during the 17th session. The patient realizes that her current relationships are not fulfilling her needs and that she is unhappy with how others are treating her and that she would rather be on her own:

> *[…] I really want to stay on my own for now and not start anything more with anyone because I want to concentrate on myself […].*

Before treatment termination, the patient does not experience any communion fulfillment, therefore receiving a score of 0 during the 23rd therapy session. Over the course of therapy, after having phases of being in contact with her ex-partner, the patient realizes in an argument she had the previous day that her ex-partner will only keep on devaluing her and that she does not want to put up with it anymore. She realizes that her past and current relationship with him does not fulfill her communal needs in any way:

> *[…] and then I said that I didn't think it was good for us to keep seeing each other because I couldn't see a way back into the relationship […].*

Despite communion fulfillment increasing slightly towards the middle third of treatment, the patient's communion fulfillment score had an overall negative trend. Therefore, these results do not support the second hypothesis (H2).

### 3.1.3. Coherence

All average coherence scores over the course of therapy are illustrated in Figure 7. The third hypothesis predicted that the overall coherence of the patient's narratives would increase over the course of psychotherapy (H3).

The patient's narratives are moderately high in coherence at the beginning of therapy, with a score of 1.88 in the second session. When describing her past romantic experiences and her conversation with her ex-partner, she, to a certain degree, orients the listener into the story, and one can identify the structure or the temporal sequence of all incidents. However, she only uses a small amount of affective language to describe how she felt during these experiences, but not why the story is important to tell. The two narratives also lack a high degree of integration of the story into her self-identity and are not linked to previous autobiographical experiences. She merely reports that she felt disappointed about others and herself.

The patient's overall coherence score decreases to 1.50 at session five. Orientation and structure remain moderately high, allowing the reader to identify most major characters and locations as well as most of the temporal sequences of events; however, one of the narratives includes a low amount of affective language, whereas the other lacks both the use affective language and integration to a high degree. It does not become clear why these experiences are important for the patient to tell or how these make her feel. One of the narratives is also not integrated into her self-identity, as the patient merely portrays her struggle with her current dating life.

At the second third of treatment, overall coherence largely increases to a score of 2.38 at session 14. The coherence scores of both narratives range from moderately high to high on all four dimensions. The patient's depiction of her traveling alone scores highly on three of four coherence dimensions. The structure dimension is the only one in which the patient only scores moderately high, as the overall sequence of events becomes unclear in certain passages. The patient's elaboration on having a different view on her past relationship scores moderately high on all four dimensions.

In session 17, overall coherence slightly decreases to a score of 2.13. The patient's first narrative evolving around wanting to be alone includes a high degree of integration; however, there is a lack of affective language, and it does not become clear to the reader how the patient felt during that specific event. The second narrative in which the patient depicts struggling with current intimate relationships and identifying her own needs, orientation but especially structure decrease, and there is a lack of affective language, whereas integration remains high.

At session 23, the patient's overall coherence score increases and reaches its highest rating before treatment termination, with a score of 2.50. Both narratives include a moderately high to high range of coherence on all four dimensions. However, the overall integration of both narratives has slightly decreased compared to the 17th session, from a score of 3 to 2.

The third hypothesis was partially supported, as overall coherence increased over the course of therapy, with the exception of decreases in sessions 5 and 17 (H3).

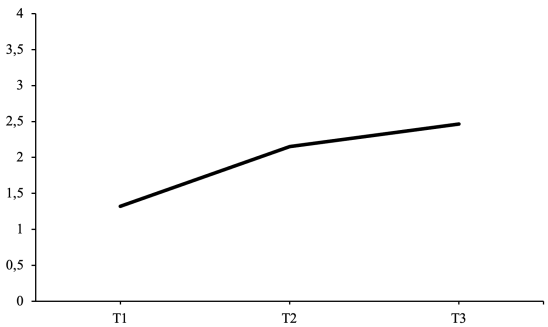


FIGURE 7
Average life story agency scores at each interview time point. T1, pre-interview; T2, post-interview; T3, follow-up interview.

## 3.2. Life stories

### 3.2.1. Agency

All average agency scores at each interview time point are illustrated in Figure 8. The fourth hypothesis predicted that the average agency scores at T2 and T3 would be higher when compared to the average agency score at T1 (H4).

During the pre-interview (T1), the patient's average agency score starts at 1.32, illustrating herself mostly at the mercy of circumstances in her life experiences. She starts by describing her birth complications and following health issues, due to which she experienced a slower progression while growing up compared to other children. She also narrates about her struggles connecting with others and experiencing bullying during middle and high school, in

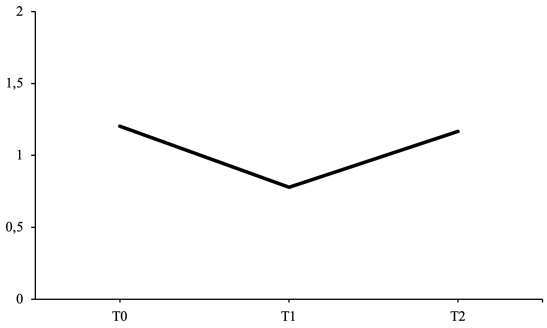


FIGURE 8
Average life story communion fulfillment scores at each interview time point. T1, pre-interview; T2, post-interview; T3, follow-up interview.

which she portrays herself at the mercy of the actions of others and specific circumstances. She then describes a turning point in her life, in which she decided to initiate change and travel abroad for a year. She gained self-esteem through her year abroad and perceived herself as highly agentic.

During the post-interview (T2), the patient's average agency score increased to 2.15. She again narrates about her birth complications, health issues, bullying experiences, and year abroad. However, the patient also narrates how she experienced the break-up with her ex-partner and why she decided to start therapy. The new narratives included in her life story portray her as agentic, as she includes many points of self-insight that have brought her to the point in life she is now, due to which she has changed her behavior and attitudes. She reports that these experiences have helped her grow as a person:

> *[…] but I went through it all because I always hoped that somehow the trust would grow, and the relationship would become easier […]*

> *[…] I let him do a lot to me, but then I realized that it was just a relief later on. And I started therapy directly afterwards [..] [in order] to learn to distance myself and to say no. And to learn not to feel guilty anymore and that I am very important and that I can't let something like that happen to me. So, this experience was very important for me.*

At the follow-up interview (T3), the patient's average agency score slightly increases again, reaching a final score of 2.46. Her life story again includes her depiction of her birth complications, health issues, and bullying experiences. Her depiction lacks a sense of agency, as the portrayal of herself remains at the mercy of past circumstances. She also narrates about her year abroad, in which she portrays herself as highly agentic. She also mentions the comparison with her sister, depicting this relationship as a reason for wanting to travel abroad, initiate change, and distance herself from her previous friend group and the stigmata of being the sister that is not as capable of being self-assured or agentic. She also narrates about a past breakup due to feeling that the relationship was not fulfilling her communal needs. She finishes the interview by narrating again about ending the relationship with her ex-partner:

> *[…] but at the end of the day it was an important experience for me because it was like a liberating blow, and I found myself again […]*

Compared to the post-interview, the narratives of the follow-up interview include more passages of self-insight and reasoning for her past decisions, depicting an overall higher score for agency.

The results support the fourth hypothesis, as agency scores at T2 and T3 are higher compared to the baseline score at T1 (H4).

### 3.2.2. Communion fulfillment

The patient's average communion fulfillment scores for each interview time point are presented in Figure 9. The fifth hypothesis predicted that communion fulfillment scores at T2 and T3 would be higher when compared to the communion fulfillment score at T1 (H5).

From the pre-interview (T1), four out of seven narratives were coded for communion fulfillment; from the post-interview (T2), six out of seven narratives were coded; and from the follow-up interview (T3), six out of seven received a communion fulfillment rating.

In the pre-interview (T1), the patient has a moderate communion fulfillment score of 1.20. As a child, she describes herself as being afraid of seeking contact and playing with other children and that she would often feel ashamed when picked on. Due to being shy, she also experienced difficulties standing up for herself and befriending new people. Over the course of her school career, during which the patient experienced phases in which classmates were bullying her, she also realized that she was still perceived by her friends and family as shy and inhibited even though her self-perception had changed, causing her to resent her current relationships. This was also one reason for her year abroad, where she describes having had great friendships and feeling loved by others.

In the post-interview (T2), the patient's communion fulfillment score decreases to a moderately low score of 0.78. During this interview, she again narrates her previous struggles in past relationships, as in the pre-interview. However, the patient also includes more narratives in which these struggles become more prominent, for example, always being compared with her sister and her failed relationship with her ex-partner, resulting in her seeking treatment. She illustrates herself as becoming aware of how unsatisfied she is with her past behavior in her previous relationship and how she sacrificed friendships and her own communal needs for her ex-partner:

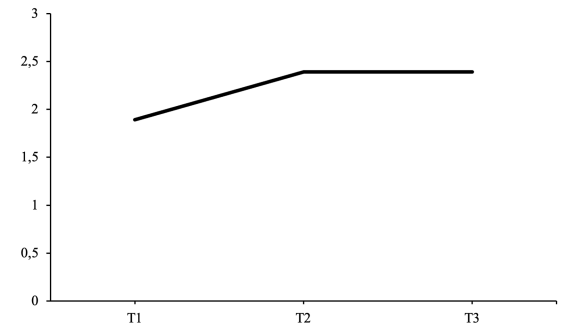


FIGURE 9
Average life story coherence scores at each interview time point. T1, pre-interview; T2, post-interview; T3, follow-up interview.

> *I tried to do everything for him to keep this relationship going well and then I almost gave up on myself, I gave up male friendships for him because he didn't want that and I did less with friends, so I gave up a lot for him [..] and the experience of the break-up devastated me [..] but in the end it was an important event for me [..] it's like a liberation blow and I found myself again.*

At the follow-up interview (T3), the average communion fulfillment score for the patient's life stories increases to a moderate score of 1.17, almost reaching the same score as the initial starting score of the pre-interview. During this interview, the patient narrates about negative experiences while in school and being compared to her sister. She also mentions the break-up with her ex-partner. However, she also elaborates on friendships she made during her year abroad, having a beneficial working relationship with her therapist and founding a sports club with friends.

These results do not support the fifth hypothesis, as both scores at T2 and T3 are lower when compared to the communion fulfillment score at T1 (H5).

### 3.2.3. Coherence

The patient's average coherence scores at each interview time point are illustrated in Figure 9. The sixth hypothesis predicted that overall coherence scores at T2 and T3 would be higher compared to the overall coherence baseline score at T1 (H6).

Before the beginning of treatment (T1), the patient has a moderate coherence score of 1.89. The life story narratives score high on orientation and structure, allowing the reader to identify the main characters and sequence of events. However, many narratives lack affectual language or integration, especially in which she depicts herself struggling with certain circumstances such as health issues and bullying experiences.

In the post-interview (T2), the overall coherence of the patient's life story narratives increases, reaching an average score of 2.39. Not only do the scores for orientation and structure increase, but the patient's use of affectual language and especially integration largely increases as she integrates her autobiographical experiences into her self-identity. Integration became especially prominent in narratives regarding her break-up and reason for seeking treatment.

In the follow-up interview (T3), the patient's overall coherence score remains stable, having the same overall score as in the post-interview. In comparison to the post-interview scores, orientation and structure scores further increased, and the use of affective language remained stable, whereas the integration score decreased. Most of the narratives that had been previously narrated during the post-interview had slightly decreased in overall coherence. In contrast, newly narrated life stories, such as founding a sports club and depicting an important therapy session, scored moderately high in coherence.

These results support the sixth hypothesis, as coherence scores are higher at T2 and T3 compared to the baseline score at T1 (H6).

## 4. Discussion

To the best of our knowledge, this is the first study to examine the development of the narrative identity of an AvPD patient in both narratives within STPP sessions and life stories before, after, and 6 months following treatment termination. It was predicted that agency, communion fulfillment, and coherence would increase over the course of psychotherapy. Moreover, it was hypothesized that the life stories at the post-and follow-up interviews would be higher in agency, communion fulfillment, and coherence compared to the pre-interview life story. The results partially supported these hypotheses. On the one hand, agency increased with a few declines over the course of psychotherapy and increased further 6 months following treatment termination. Comparatively, communion fulfillment began to increase slightly and decreased drastically towards the end of treatment. Six months following treatment termination, communion fulfillment had almost reached its previous starting point. Coherence, on the other hand, increased with a few decreases, similar to agency over the course of psychotherapy, and remained stable 6 months following treatment termination.

### 4.1. Increases in narrative agency and coherence are associated with successful psychotherapy outcome

As predicted, agency scores increased over the course of psychotherapy in the patient's narratives evolving around romantic interpersonal relationships and increased further after treatment termination. These findings align with previous studies that have also found agency to increase in life stories after psychodynamic psychotherapy treatment of BPD patients (35) or in narratives regarding psychotherapy of patients with a variety of diagnoses throughout a 12-week treatment program (22).

Due to a decrease in overall symptom severity and a decrease in BDI-II and BSI scores after treatment and 6 months following treatment termination, it can be established that the case study had a successful treatment outcome. Despite agency being considered a major motivational thematic cluster in personal narratives and life stories (20), the construction of highly agentic narratives does not necessarily result in an individual acting agentic. However, an increase in agency within personal narratives may reflect the manifestation of change within behavior in everyday life. Due to the increase in agency within the therapy narratives as well as life stories and a decrease in depressive symptoms, it may be presumed that the patient also acted more agentic within her everyday life. This assumption would conclude that an increase in agency may result in an improvement in mental health, which would align with previous theories, suggesting agency is a key factor for positive psychological functioning (22, 64, 67). Furthermore, an increase in agency in the patient's life story remained consistent even after treatment termination, suggesting that psychotherapy may have long-lasting effects on agency development.

It should also be pointed out that the patient displayed decreases in sessions 5 and 17, in which she overall struggled to gain control over situations and felt partly at the mercy of circumstances due to an inability to influence her interpersonal relationships. These results indicate that working through narratives in which the individual may struggle with gaining agency does not occur in a linear pattern. Instead, working through these themes consists of "ups and downs"

which is found to be common in psychotherapy treatment (68) and is thus a good representation of the development of agency throughout psychotherapy.

As predicted, overall coherence increased over the course of psychotherapy, similarly to agency and unexpectedly remained stable after treatment termination. These findings align with those of studies conducted with patients diagnosed with posttraumatic stress disorder (43), schizophrenia (44, 45) and BPD (46) which have also concluded that life stories and personal narratives are more coherent after psychotherapy. However, it does not align with Adler's previous findings (22), as it was concluded that coherence did not increase throughout a 12-week psychotherapy treatment. However, these findings were based on narratives written by participants after each session and revolved around experiences regarding psychotherapy. Therefore, these narratives demonstrate a more filtered form of narrative, which can not be compared to narratives examined within psychotherapy sessions. Furthermore, the present study's findings contradict the assumption that coherence in past accounts increases over time, whereas narratives regarding present accounts remain unchanged over the course of psychotherapy (22). Narratives used for coding mainly regarded present experiences at the time. This suggests that time may not be the only factor in developing higher coherence. Instead, these findings indicate that narrating events more coherently portrays better coping with experiences and improvements in overall mental health. Due to the decrease in symptom severity over the course of psychotherapy, results may demonstrate a relation between higher well-being and coherence which would align with previous findings (22, 64). As mentioned above, the decreases in sessions 5 and 17 may demonstrate the non-linear pattern of working through "ups and downs" commonly found in psychotherapy treatment (68).

Due to having a similar development as agency over the course of treatment, it may be presumed that coherence and agency are highly associated. The ability to narrate past experiences and one's life story in a highly coherent manner expresses how well an experience has been dealt with and provides a sense of meaning (23–25). Furthermore, an individual that narrates with a high degree of agency is also said to experience a sense of meaning and purpose (9, 20). Therefore, agency and coherence are associated with the utilization of meaning-making; thus, regaining agency and, with that, a sense of control over circumstances might simultaneously increase the ability to narrate more coherently.

## 4.2. Narratives low in communion fulfillment may reflect awareness on maladaptive relationship patterns

Unexpectedly, communion fulfillment only increased slightly towards the middle third of psychotherapy but was non-existent by treatment termination. This finding is surprising, as communion fulfillment has been associated with high mental well-being (22, 69), due to which it was expected that over the course of successful psychotherapy treatment, communion fulfillment would increase. Furthermore, previous findings have not reported an overall decline in communion fulfillment after psychotherapy but instead suggest that communion fulfillment remains unchanged (28).

A possible reason for decreased communion fulfillment in this case study could be the form of treatment. Psychodynamic psychotherapy focuses on exploring past relationship patterns and working through central conflicts within interpersonal experiences (52, 53). Over the course of treatment, the patient became aware of how unfulfilling her relationships are, as her relationship needs were unmet, and her feelings were not reciprocated. In the last third of treatment, the patient states that she might need time to focus on herself and develop a better understanding of what she seeks in a healthy relationship. It may therefore be suggested that the first step in this patient's case study is gaining agency. An increase in agency allows the patient to become aware that she is not at the mercy of the actions of others regarding interpersonal relationships but that she may also make decisions and seek what is most fulfilling for her. The second step would be for the patient to form and maintain healthier and more satisfying relationships. Furthermore, it should be pointed out that the patient underwent short-term treatment. Therefore, when undergoing long-term treatment, the patient's communion fulfillment may become balanced with her level of agency over the course of psychotherapy.

The patient's communion fulfillment score had only increased at the six-month follow-up interview, whilst almost reaching the initial starting score This may suggest that the following two factors have occurred: (1) the psychodynamic setting encourages patients to critically evaluate their current relationships (52, 53). However, this effect may have decreased over time once treatment was terminated, suggesting that a critical viewpoint may either be only present when undergoing treatment or may have long-lasting effects after long-term treatment, as has been suggested by previous studies comparing short-term vs. long-term psychodynamic psychotherapy treatment (2, 70) the patient may have also started seeking out more fulfilling interpersonal relationships, as she had become aware of what relationships she would want to pursue in order to feel fulfilled in her interpersonal experiences. In her life story at the follow-up interview, the patient narrated about past and present positive relationships, which had not been mentioned in the pre-and post-interview. This would underline that she became aware of fulfilling relationships in the past and present. These results would align with the theories presented by Dimaggio et al. (71), namely that self-development and self-reflection precede the development of relationships with others.

## 4.3. Limitations of the present study

The current study has several limitations that must be taken into consideration when interpreting these results. Firstly, due to this being a case study, generalizability is limited. However, the examination of case studies can be beneficial to decipher future research possibilities and allow for a more in-depth investigation (72). The lack of blinding of the master coder may also be listed as a limitation of the present study. However, the high inter-rater reliability established by the reliability coder could be understood as a confirmation of a sufficient objective coding provided by the master coder. A possible limitation is only examining narratives revolving around romantic relationships. This is only one form of relationship issue that the patient suffered from, as she also reported struggling at work and within friendships. However, narratives regarding

interpersonal romantic relationships allow us to examine the development of narrative identity on a very specific scale (73), as these may portray the overall general behavior in other interpersonal relationships, which is a common concept in psychodynamic psychotherapy (52, 53).

## 4.4. Suggestions for future research

Despite the current case study including a lack of generalizability, this case study, especially the study design, may be used as inspiration for future research. Further studies should inspect the development of narrative identity not only before and after psychotherapy treatment but also examine narratives within psychotherapy sessions. Multiple research studies have linked communication fulfillment and coherence to high mental well-being. However, findings of previous studies, which have reviewed the development of communion fulfillment and coherence in patients receiving psychotherapy, are inconsistent with narrative identity theory. Furthermore, it should be noted that only a few studies have specifically examined changes in agency, communion fulfillment, and coherence. Moreover, these studies only compare scores before and after psychotherapy or use narratives written by patients after psychotherapy sessions. Narratives within psychotherapy should be examined in order to identify crucial moments of narrative identity development and create a better understanding of possible influencing factors. We suggest emphasizing the importance of examining narratives within psychotherapy treatment by the distinction between the following two settings: interview and therapeutic setting. During an interview, the participant is asked to narrate their life story without interruption. This may result in the participant reporting a life story with as much detail as possible. In comparison, therapy sessions include a dialog between the patient and therapist. Moreover, patients may use narratives to present their psychological distress and, therefore, present themselves with more vulnerability. Psychotherapy aims to work through important narratives together, resulting in a different narration form than in an interview setting. Therefore, the processes leading to changes in narratives and narrative identity may be more observable when examining narratives within psychotherapy. Due to the lack of research on narratives within therapy sessions, further studies are vital to uncovering differences in narration due to the specific setting in which narratives are reported.

Furthermore, it should be examined whether changes in narrative identity truly result from the intense working process within psychotherapy or whether changes occur naturally over time, regardless of whether receiving treatment. This may be investigated by using a control group of patients who only undergo the interview assessments, without receiving treatment in the given time frame. This may uncover whether changes in narrative identity occur without treatment and, if so, whether these may be pinpointed to merely repeated narration.

Studies should also consider comparing different treatment forms of psychotherapy and their effects on changes in narrative identity. This study concluded that STPP focuses on conflicts within interpersonal relationships, encouraging patients to become aware of their unhealthy relationship patterns and whether they feel fulfilled within their current relationships. Therefore, it should be examined whether other forms of psychotherapy, such as less conflict-focused treatments like cognitive behavioral therapy, or treatments with a longer duration, such as psychoanalysis, may have the same impact on communion fulfillment.

Moreover, it should be investigated whether these findings can be generalized and whether these outcomes are characteristic of people suffering from AvPD. There is a lack of narrative identity research on other forms of PDs besides BPD. The importance of a narrative identity approach in the treatment of PDs has been stressed by Lind (74), as this allows for a more dimensional approach since narrative identity is considered a mechanism of change within psychotherapy treatment of moderate to severe PDs (75). Working with life stories and personal narratives emphasizes the importance of a patient's unique life experiences and strengthening narrative identity within one's life story may result in a healthy organization of personality (74). Furthermore, AvPD is considered a neglected PD. Due to its high prevalence, mortality rate, and subjective impairment, further narrative identity research, including a larger sample size, must be conducted in order to identify effective treatment forms for AvPD, which include a narrative turn (74).

## 4.5. Conclusion

This case study extends the findings of already existing literature on narrative identity development in relation to personality pathology and the impact of psychotherapy. Results illustrate that agency and coherence increase over the course of STPP and that agency increases 6 months after treatment termination. Regarding communion fulfillment, decreases were identified by the end of STPP and an increase 6 months following treatment termination. These results demonstrate how narrative identity of patients with a AvPD diagnosis may change throughout and after STPP. Moreover, the form of psychotherapy and its duration may impact how communion fulfillment develops throughout treatment.

Despite being a case study, through which generalizability is limited, to the best of our knowledge, this is the first study to examine narrative identity not only in life stories before, after, and 6 months following psychotherapy but also in narratives within psychotherapy sessions. These findings, therefore, emphasize the need for further exploration of psychotherapy narratives within the research field of narrative identity.

Future examination of the narrative identity development of individuals with AvPD should be conducted to fully understand the disturbances and changes in narratives by AvPD patients, especially since AvPD has largely been neglected by previous research. Further investigation dealing with these research gaps is vital as a narrative approach has been considered crucial for improving psychotherapy treatment of individuals with PD.

## 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

Written informed consent was obtained from the individual for the publication of any potentially identifiable images or data included in this article.

## Author contributions

DF contributed to conception and design of the study and organized the database. AT performed the qualitative analysis and wrote the first draft of the manuscript. All authors contributed to manuscript revision, read, and approved the submitted version.

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## 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



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# Operationalizing intimacy and identity aspects of personality functioning in relation to personality disorder in adolescents

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According to dimensional models of personality pathology, deficits in interpersonal (intimacy and empathy) and self (identity and self-direction) function (Criterion A) are core to all personality disorders. These aspects of personality functioning (Criterion A) have seldom been evaluated for how they might relate to one another in the context of personality pathology in adolescents. Moreover, the use of performance-based measures to evaluate aspects of Criterion A function remains an untapped resource. Therefore, the present study aimed to evaluate relations between two features of Criterion A, maladaptive intimacy and maladaptive (or diffused) identity, in adolescence. For intimacy, we leverage a performance-based approach to studying intimacy, operationalized in a developmentally relevant way (perceived parental closeness). For identity, we rely on a validated self-report measure of identity diffusion. We examined the relationship between these features with each other and their relations with borderline features. Additionally, we explored whether identity diffusion mediated the expected relationship between perceived parental closeness and borderline features. We hypothesized that greater distance in perceived parental closeness would be associated with higher levels of borderline features, as well as higher levels of identity diffusion, and that identity diffusion would account for the relationship between intimacy and personality pathology. The sample included 131 inpatient adolescents ($M_{age}$ =15.35, 70.2% female). Results indicated that intimacy, operationalized as perceived parental closeness, with both mothers and fathers was significantly associated with levels of identity diffusion and borderline features. In addition, greater feelings of closeness with parents were associated with lower severity of borderline features *via* healthier identity function. Implications of the results, limitations, and future directions are discussed.

KEYWORDS

**parental closeness, intimacy, identity diffusion, AMPD criterion A, self-other understanding, adolescents, borderline personality disorder, ICD-11**

## Introduction

Research has demonstrated that borderline personality disorder (BPD) in adolescence has notable similarities to adult BPD, in terms of impairments in functioning, psychiatric comorbidities, phenomenology, and prevalence (1–4). Compared to other adolescent mental disorders, adolescent BPD is associated with higher rates of self-harming behaviors, suicidality,

and impulsivity, highlighting the severity of this disorder (5, 6). Extensive literature has also documented the adverse long-term outcomes for adults with BPD, including premature mortality, poor quality of life, and poor social and occupational functioning. Additionally, there is mounting evidence of poor psychological, social, vocational, and physical health outcomes for adolescents and emerging adults with BPD and 'subthreshold' BPD [e.g., (7–10)]. Consequently, there is a growing emphasis on early detection and intervention of BPD in adolescence (11).

While the BPD construct has been helpful to legitimize the early diagnosis and treatment of BPD in young people (12), the personality disorder field has been moving toward a dimensionalized diagnostic system as represented by the 11th version of the International Classification of Diseases (ICD-11) and the Alternative Model for Personality Disorders (AMPD) in Section III of the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (13, 14). Both the ICD-11 and AMPD are thought to have significant developmental relevance due to their focus on self and interpersonal functioning—two key processes associated with the adolescent developmental period. Specifically, according to the AMPD, the core and common feature of all personality dysfunction is defined by Criterion A, which describes impairments in self-functioning (identity and self-direction) and interpersonal functioning (empathy and intimacy). This focus is also reflected in the ICD-11 entry criterion. For the assessment of AMPD Criterion A, a range of self-report and interview-based measures have been developed. These measures show strong validity and reliability in adults [see (15) and (16) for a review] and there is an emerging literature validating Criterion A-related measures in adolescents [e.g., (17–20)]. The limitations of self-report measures to adequately assess Criterion A function, given the known impairment in self-reflection associated with personality pathology, have been noted (21, 22), and the potential of using experimental or more performance-based measures has been suggested—in particular for Criterion A (23). Such measures are thought to be less subject to a person's self-presentational efforts (24). In addition, because individuals construct their responses to the task, in lieu of selecting descriptions on a Likert scale that best fit them, performance-based measures are thought to provide a more idiographic picture of personality (25). Bornstein (21) also notes that many aspects of personality functioning are hard to verbalize. This may be especially true for adolescents who, by virtue of their developmental phase, may be struggling to express themselves (26). In the context of adolescent personality pathology, the question then becomes how to operationalize and assess aspects of Criterion A in a developmentally relevant way through measures that do not rely so heavily on verbalization capacity.

In the current study, we approach two aspects of Criterion A functioning—identity and intimacy—in the following way. For identity assessment we rely on a validated self-report instrument of identity diffusion in adolescents. For intimacy, we considered the fact that for adolescents, a developmentally salient relationship is that of the parent-adolescent relationship (27). While adolescents begin to gravitate toward peer relationships, research has shown the parent-adolescent relationship to still be the most relevant attachment context for adolescents (28, 29). Indeed, in the context of adolescent personality pathology, Skabeikyte-Norkiene and colleagues (30) confirmed that relationship quality (closeness and discord) with parents but not peers accounted for the variance in impaired levels of personality functioning in adolescents. This underscores the continued importance of the parent–child relationship, in particular, as a protective factor for buffering against the risk for psychopathology in adolescence, as young people navigate the additional stressors (i.e., neurobiological, social, and emotional changes) brought on by the transition to this developmental phase (31–33).

Beyond operationalizing intimacy in adolescence in a developmentally salient manner through a focus on the parent-adolescent relationship, we also sought to assess this construct with a performance-based approach used to assess typical intimacy functioning. We do this to evaluate the usefulness of performance-based measures to assess aspects of Criterion A (e.g., maladaptive identity) in adolescents. A well-used measure in social psychology for assessing intimacy is the Inclusion of Others in Self (IOS) Scale, a pictorial scale capturing the subjective sense of interconnectedness between the self and other through a series of progressively more overlapping Venn-like diagram circles, ranging from no overlap to full overlap in circles (34). Greater overlap, or less distance between the centers of the two circles, suggests greater feelings of perceived closeness to the other. In adolescent studies, the IOS has often been employed as an instrument for operationalizing relational closeness to parents, peers, and community in a multitude of contexts, without relying on verbalization. Indeed, several empirical studies have evaluated adolescents' self-parent overlap in the context of psychopathological (e.g., depression, sexual risk-taking), emotional (e.g., self-esteem, life satisfaction, positive and negative emotionality), and neural (e.g., ventral striatum activity) outcomes (35–39). As yet, no studies have used the IOS to operationalize intimacy (perceived parental closeness) in relation to adolescent personality pathology. However, researchers have utilized the IOS in studies of adults with BPD as a measure of connectedness with romantic partners following discussions of threatening topics (40), theoretical others following exposure to social inclusion, "over-inclusion," and ostracism conditions (41), and theoretical others following participation in multisensory perceptual self-other-distinction tasks (i.e., facial morphing task and synchronous or asynchronous interpersonal multisensory stimulation) (42).

Against this background, our first aim was to evaluate the relationship between maladaptive intimacy in adolescents, operationalized through IOS measurement of perceived parental closeness, and more traditionally measured personality pathology—in this case borderline features. Demonstrating this relationship would confirm that intimacy, operationalized thus, relates to personality pathology in adolescents and can be used to evaluate a core feature of personality functioning in adolescents. We expected greater distance in perceived closeness to both mothers and fathers (i.e., less feelings of parental closeness) to be associated with higher levels of borderline features. Indeed, while no studies have evaluated subjective parental closeness in relation to adolescent borderline features or broader personality dysfunction by way of the IOS scale, links between lower levels of parent-adolescent closeness and greater impairment in Criterion A level of personality functioning have been established (30). Moreover, prior research has shown similar associations between negative interactions with parents, such as less parental closeness, parental warmth, perceptions of parents as caring, maternal emotional support and greater boundary violations, and adolescent personality dysfunction [e.g., (43–47)].

Our second aim was to investigate the association between intimacy (perceived parental closeness) and identity diffusion. While Criterion A is intended to be viewed as a unidimensional severity criterion (15), from a more psychodynamic, process-oriented view of personality, we would expect that self and interpersonal functioning would be in constant, reciprocal interaction with one another. In fact, developmental theories of BPD, specifically mentalization-based theory (48), suggest that it is through high quality interactions with the caregiver in which a child is mentalized, that a sense of self begins to emerge. Through constant feedback, recognition and description from caregivers commenting and enquiring about the motivations and intentions linked to children's behavior, children begin to form a representation of self. This process culminates in adolescence, a developmental phase where identity formation becomes crucial to resolve a crisis between identity diffusion ("a lack of integration of the concept of self and significant others") and integration (consolidation of one's representations of the self across time and contexts) (49, 50). As articulated in the AMPD, identity diffusion involves an absence of agency or experience of the self as unique, inappropriate boundaries with others, weak or threatened self-esteem and distortions in self-appraisal, and emotions incongruent with the internal experience or context (14). In contrast, identity consolidation involves an ongoing awareness of the self, the ability to maintain role-appropriate boundaries, consistent and regulated self-esteem and accurate self-appraisal, and the ability to experience, tolerate, and regulate a full range of emotions (14). Moreover, previous research has demonstrated associations between parent-adolescent relationships, including perceptions of parental care vs. overprotection and family cohesion, and adolescent identity status (diffusion, foreclosure, moratorium, achievement). Specifically, links between greater perception of paternal care and lower identity diffusion, greater perception of paternal and maternal care and higher foreclosure, and greater family cohesion and lower diffusion and moratorium have been shown among adolescents and young adults (51, 52). Thus, adolescence is a vital period for both identity formation and optimal parent–child relations. Against this background, we expected a significant association between intimacy (perceived parental closeness) and identity diffusion so that greater distance in perceived parental closeness (i.e., less feelings of parental closeness) would be associated with higher levels of identity diffusion. We also expected identity diffusion to relate to borderline features—a finding which has already been established in adolescence (53–55).

Finally, we were interested in investigating whether identity diffusion explains some of the variance in the expected relationship between intimacy and personality pathology. Following Fonagy et al.'s (48) model described above and principles of attachment theory, one could argue that perceived parental closeness should relate to identity diffusion in adolescents. On this basis, we expected that identity diffusion would account for significant variance in the hypothesized relationship between lack of closeness with parents and increased borderline features.

# Materials and methods

## Participants and procedure

The sample was drawn from a larger study on the social-cognitive correlates of psychopathology. Participants were recruited from an inpatient psychiatric unit at a private hospital in a major city in the southwestern United States. Inclusion criteria required fluency in English to consent and complete the assessments and being between 12 and 17 years old. Exclusion criteria were active psychosis or mania, an autism spectrum disorder, or an IQ of less than 70. $N = 131$ adolescents (70.2% female, $M_{age} = 15.35$, $SD = 1.43$) on the unit underwent the IOS assessment alongside measures of identity diffusion and personality pathology. The sample had the following racial/ethnic breakdown: 67.2% White/not Hispanic ($n = 88$), 5.3% Hispanic ($n = 7$), 5.3% Asian ($n = 7$), 1.5% African American ($n = 2$), 3.8% mixed or other ($n = 5$), and 16.8% unspecified ($n = 22$). Average length of stay was 36.94 days ($SD = 13.20$). The study was approved by the institutional human subjects review committee. Adolescents and their parents provided assent and consent, respectively. Adolescents were assessed by doctoral-level clinical psychology students and/or trained clinical research assistants during the first 2 weeks following admission. The study was not preregistered as data collection took place in 2015 when less emphasis was placed on open science practices.

## Measures

### Borderline personality disorder features scale for children

The Borderline Personality Disorder Features Scale for Children (BPFS-C) is a 24-item self-report measure of borderline features in children and adolescents (56). Items are rated on a 5-point Likert-type scale, ranging from 1 (*not true at all*) to 5 (*always true*) to assess how participants feel about themselves and others. The total score is calculated by summing all items, with higher scores indicating higher levels of BPD features. The scale also yields four subscales: identity problems ("I feel that there is something important missing about me, but I do not know what it is"), affective instability ("I go back and forth between different feelings, like being mad or sad or happy"), negative relationships ("I worry that people I care about will leave and not come back"), and self-harm ("I get into trouble because I do things without thinking"). We use the total score, which has demonstrated reliability and validity in previous studies with adolescents [e.g., (57, 58)]. Cronbach's alpha for the total score in the current sample was $\alpha = 0.89$.

### Inclusion of other in the self

The original Inclusion of Other in the Self (IOS) was a single-item pictorial measure designed to assess how individuals conceptualized their experience of relational closeness to a target (34). The original scale depicted seven pairs of circles (one circle designated the "self" and the other designated the "other"), with the sets ranging from completely separate to nearly completely overlapping and individuals selecting the pair that best represents their relationship. Researchers may choose to score responses on a 7-point scale, with increasingly overlapping circles corresponding to higher scores to suggest greater feelings of perceived closeness to the "other." Previous studies with adults report high levels of reliability and validity in terms of relations with other measures of relationship closeness (34, 59, 60), including test–retest reliability and convergent validity with the Relationship Closeness Inventory (61) and the Subjective Closeness Index (62). The IOS has also been used with samples

of preschool-aged children, school-aged children, and adolescents (63–68). Importantly, due to the IOS's flexibility in assessing both relationships (e.g., peers, romantic partners, parents, God) and broader contexts (e.g., culture, nature, consumer brands); its minimal reliance on language; and its ability to sidestep biases elicited by verbal self-report measures, it is ideal for developmental downward extension to youth (34, 69). The current study used the Continuous IOS (70), an online version of the IOS where participants drag one circle labeled the "self" toward or away from a circle (designated as mother or father) to best represent their relationship. Each participant completed the IOS twice, once in reference to their mother and once in reference to their father. The Continuous IOS grants the participant finer precision in indicating their experienced degree of relational distance in that it yields an output for percentage overlap (from 0% to 100%) between the two circles, as well as an output for distance between the two circles, ranging between −100 and 100, where −100 represents circles as far apart as possible, 0 represents adjacent circles, and 100 represents circles nearly completely overlapping. The "distance between centers" output is considered particularly valuable, as it allows for clearer distinction between participants "who represent their relationship as two merely tangent circles" vs. those "who see their relationship as two wholly separate circles" (69). In the present study, distance scores were obtained and made positive by adding 100 to each to aid in interpretability. Thus, higher distance scores indicate greater distance in perceived parental closeness (i.e., less feelings of perceived parental closeness). Importantly, although higher scores could perhaps be interpreted as an inflated sense of closeness that is driven by impairments in self-other distinction, a key feature of BPD, previous studies employing the IOS with individuals with BPD have demonstrated that BPD patients reported less feelings of closeness than their healthy control counterparts. Specifically, individuals with BPD perceived less social connection to theoretical others irrespective of being in a social inclusion, "over-inclusion," or ostracism condition (41), and a sharper decline in feelings of closeness to romantic partners when they were observed to demonstrate a heightened stress response (40).

## The assessment of identity development in adolescents

The Assessment of Identity Development in Adolescents (AIDA) is a 62-item self-report questionnaire of identity development in adolescents that is specifically focused on impairments in personality functioning (71). Items are rated on a 5-point Likert scale and yield a total score representing identity diffusion and two scale scores representing identity discontinuity ("I can imagine the kind of person I will be in the future," "I feel I do not really belong anywhere") and identity incoherence ("I often feel lost, as if I had no clear inner self," "I need reassurance from others to not give up"). The current study uses the total score (identity diffusion). The total score has shown evidence of reliability and validity in variety of samples across cultural groups, including a large US community sample and a clinical subsample of the larger study from which the current sample was drawn (19, 72, 73). In the current study, of the 131 total study participants, $n = 109$ completed this measure. McDonald's omega indicated good internal consistency ($\omega = 0.88$).

## Data analytic strategy

All analyses were conducted using SPSS 25 (74). Prior to main analyses, descriptive statistics were examined to evaluate assumptions of normality. Next, attrition analyses were calculated to examine whether there were systematic differences in age, gender, perceived closeness to mothers (IOS—mother), perceived closeness to fathers (IOS—father), and borderline features (BPFS-C) between adolescents that completed the measure of identity diffusion (AIDA) and those that did not. Bivariate correlations were tested between main study variables. Finally, we tested a mediation model using the PROCESS macro with borderline features as the dependent variable and gender as a covariate. Two separate models were tested with closeness to either mother and father as independent variable and identity diffusion as the mediator. Bias-corrected and accelerated 95% confidence intervals based on 1,000 bootstrapped samples were examined to evaluate the indirect effect of parental closeness on borderline features *via* identity diffusion.

# Results

## Aims 1 and 2: Associations between intimacy, identity diffusion, and borderline traits

For continuous variables (age, IOS—mother, IOS—father, BPFS-C), independent sample *t*-tests were conducted between AIDA completers and non-completers, and for the categorical variable (gender), a Chi-square test was conducted. Results showed no significant differences between AIDA completers and non-completers for age [$t(129) = -0.61$, $p = 0.543$], IOS—mother [$t(129) = -0.213$, $p = 0.832$], IOS—father [$t(128) = -1.11$, $p = 0.268$], or BPFS-C [$t(124) = 0.75$, $p = 0.453$]. However, significant differences between AIDA completers and non-completers were found for gender, [$\chi^2(1, N = 131) = 10.871$, $p < 0.001$], and therefore gender was controlled for in subsequent mediation analyses.

Table 1 displays bivariate correlations between main study variables as well as with demographic variables of gender and age. Gender and age were not significantly related to any of the main study variables but were associated with each another. Reports of closeness with mothers and fathers were highly related.

Regarding our first hypothesis—that intimacy would be related to personality pathology, our results showed a significant negative correlation between perceived closeness with father and borderline traits (moderate effect size), as well as perceived closeness with mother and borderline traits (small effect size).

Regarding our second hypothesis—that intimacy would be related to identity diffusion, results showed significant negative correlations (moderate effect size) between perceived parental closeness and identity diffusion for both mothers and fathers. Identity diffusion was also found to be strongly related to borderline features (large effect size).

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TABLE 1 Bivariate correlations between main study variables.

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Closeness—mom | - | | | | | |
| 2. Closeness—dad | 0.56** | - | | | | |
| 3. Identity diffusion | −0.23* | −0.32** | - | | | |
| 4. BPD features | −0.18* | −0.25** | 0.73** | - | | |
| 5. Age | −0.07 | −0.11 | 0.09 | 0.17 | - | |
| 6. Gender (female) | 0.02 | 0.004 | −0.10 | −0.14 | 0.25** | - |
| Mean (SD) | 138.88 (45.27) | 129.58 (45.01) | 110.13 (41.45) | 68.53 (14.66) | 15.35 (1.43) | - |
| % Female | - | - | - | - | - | 72.2 |
| *N* | 131 | 130 | 109 | 126 | 131 | 131 |

*$p \leq 0.05$, **$p < 0.01$.

TABLE 2 Mediation analyses.

| Path | *B* | *SE* | *t* | *P* | LLCI | ULCI |
|---|---|---|---|---|---|---|
| IV: Closeness—Mother[a] | | | | | | |
| a | −0.22 | 0.09 | −2.49 | 0.014* | −0.39 | −0.04 |
| b | 0.26 | 0.02 | 10.64 | 0.000** | 0.21 | 0.31 |
| c | 0.00 | 0.02 | 0.07 | 0.943 | −0.04 | 0.05 |
| c' | −0.06 | 0.03 | | | −0.11 | −0.01 |
| IV: Closeness—Father[b] | | | | | | |
| a | −0.31 | 0.09 | −3.45 | 0.001** | −0.48 | −0.13 |
| b | 0.26 | 0.03 | 10.28 | 0.000** | 0.21 | 0.31 |
| c | −0.02 | 0.02 | −0.66 | 0.513 | −0.06 | 0.03 |
| c' | −0.08 | 0.02 | | | −0.13 | −0.03 |

[a]$n = 108$; [b]$n = 107$. Values are unstandardized path coefficients from models including gender as a covariate. *$p < 0.05$, **$p < 0.01$.

## Aim 3: The role of identity diffusion in explaining variance in the relationship between intimacy and personality pathology

For both models testing closeness to mothers and fathers, parameter estimates are displayed in Table 2.

In the first model, perceived parental closeness to mothers (IOS—mother) was entered as the independent variable, borderline features (BPFS-C) served as the dependent variable, and identity diffusion (AIDA) was explored as a mediator. Gender was entered as a covariate. Naturally mirroring the bivariate analyses, the mediation analysis revealed that perceived parental closeness to mothers was significantly negatively associated with levels of identity diffusion, and identity diffusion was significantly positively associated with severity of borderline features. Additionally, gender was not associated with levels of identity diffusion or borderline features. While there was no direct relation between closeness with mothers and severity of borderline features, the indirect path was statistically significant, such that reduced identity diffusion explained significant variance in the relationship between perceived parental closeness to mothers and borderline features. Put differently, greater perceived closeness with mothers was significantly associated with lower levels of identity diffusion, which, in turn, was related to less borderline features.

In the second model, parental closeness to fathers (IOS—father) served as the independent variable, borderline features (BPFS-C) served as the dependent variable, identity diffusion (AIDA) was entered as the mediator, and gender was entered as a covariate. Again, mirroring the bivariate analyses, results indicated a significant negative association between perceived parental closeness to fathers and levels of identity diffusion, and a significant positive association between identity diffusion and severity of borderline features. Gender was not associated with levels of identity diffusion or borderline features. Moreover, the indirect path was statistically significant, with confidence intervals that did not include zero. Thus, greater perceived closeness with fathers was significantly associated with less borderline features *via* lower levels of identity diffusion. In other words, reduced identity diffusion explained significant variance in the relationship between perceived closeness to fathers and borderline features *via* less identity diffusion.

# Discussion

The present study aimed to examine relations between two aspects of AMPD Criterion A functioning, intimacy and identity, and borderline features in a sample of inpatient adolescents by utilizing a performance-based measure of intimacy (relational closeness) and a self-report measure of identity diffusion. To this end, we used the IOS

to operationalize intimacy specifically in the context of parent-adolescent relationships (i.e., assessing perceived parental closeness as a proxy for intimacy), given the still emerging relevance of intimacy with romantic partners in adolescence. Thus, we were interested in evaluating associations between perceived parental closeness and identity diffusion (Aim 1), perceived parental closeness and borderline features (Aim 2), and identity diffusion as a mediator in the association between perceived parental closeness and borderline features (Aim 3). We expected our findings to also have relevance for ICD-11 personality disorder application of criteria, given the conceptual overlap between the entry criteria of ICD-11 and AMPD.

Our results revealed that intimacy, operationalized as perceived closeness with both mothers and fathers, related to borderline traits, such that greater parental closeness was associated with lower BPD severity, thereby confirming its relevance for personality pathology in adolescence. This finding is comparable with previous research linking lower levels of parental closeness and greater impairment in level of personality functioning among adolescents (30). Our results also confirmed a relationship between intimacy and identity diffusion, suggesting that adolescents who reported feeling closer to their parents were more likely to report lower levels of identity diffusion. In addition, our findings confirmed a relationship between identity diffusion and borderline features, which is not unexpected given that identity disturbance is a core feature of BPD and similar findings have been demonstrated by prior research (19, 50, 73, 75, 76). Moreover, intimacy exerted a statistically significant indirect effect on borderline features *via* identity diffusion, such that greater perceived parental closeness was associated with lower BPD severity *via* lower levels of identity diffusion, but with no direct effect on borderline features in the absence of identity diffusion.

From a methodological standpoint, our results support assertions that emphasize the complementary value of performance-based measures [e.g., (21–23)], especially those that do not rely on verbal capacity (21), for the assessment of personality functioning in adolescents. Bornstein (21) has written extensively about the value of performance-based or more process-oriented measures of personality pathology. We agree with his arguments especially with regard to Criterion A, which was intended by its architects to represent the more psychodynamic, process-oriented aspect of personality functioning (77). Bornstein argues that self-report alone may inflate co-occurrence with other disorders given the tendency of individuals to follow a particular pattern in answering questions across domains that actually represent different domains of functioning. Personality assessment that also includes performance-based measures may therefore add incremental value to assessment through self-report. Further elaborating the process-oriented aspects of personality functioning, Weiner (22) has pointed out that performance-based measures, experimental tasks, as well as interview-based measures, require face-to-face interaction with individuals being evaluated. We have argued that personality lives in the intersubjective space between people (78), which means that to assess it fully, one has to be in interaction with another human being to show itself. Although the IOS in the current measure did not require actual interaction, its value lies in that it begins to approximate relationship functioning perhaps in a more ecologically valid way compared to self-report.

Our findings also provide some support for the hypothesized link between self and interpersonal aspects of Criterion A, albeit preliminary given the cross-sectional nature of our data (see limitations below). Several theories of personality functioning promote the idea that self and interpersonal functioning are inextricably linked (79–81). Guided by Fonagy et al.'s (48) developmental model for the development of BPD, we have postulated that the caregiving environment influences self and identity development, which in turn determines healthy and/or unhealthy personality functioning. That identity diffusion explained a significant amount of variance in the relationship between perceived parental closeness and borderline features provides some support for this idea.

The limitations of this study should be taken into account. First, a central limitation is that the interpretation of the study's findings is constrained by its cross-sectional design, and therefore, conclusions about causation cannot be made. Second, while the IOS is considered a performance-based measure, it still has quite a bit of face validity. Therefore, the IOS is a performance-based tool to the extent that it does not rely on verbalization, and it asks an individual to "do" something. However, the IOS certainly still has some face validity in the sense that individuals may understand what they are revealing about themselves when they complete it. Other performance-based measures such as projective testing, in contrast, are thought to reveal those dynamics not consciously accessible to individuals and should be examined further for their value in assessing Criterion A components in adolescents. Third, the generalizability of our findings is limited by the fact that this sample was drawn from a private, inpatient psychiatric unit for adolescents. Therefore, future studies considering building upon our work can address these limitations by testing this mediational model in various demographically diverse, clinical and community samples, particularly within a longitudinal design. Researchers may also consider incorporating additional measures of psychopathology as well as other developmentally relevant variables (e.g., parent–child attachment, peer attachment, IOS-closeness with peers) utilizing self-report, interview-based, and experimental or task-based methods of assessment; in so doing, assessing the incremental value of IOS-based parental closeness alongside other measures of parental, peer, or romantic intimacy. Further, while we contend that relationships with parents are still the most intimate compared to other relationships in adolescence, we also note that adolescence marks a transitional period in which the relationships outside the home become more intimate and stable. Thus, future considerations should be made regarding whether to conceptualize parent-adolescent closeness as a feature of Criterion A or intimacy, which is defined as the capacity for mutually rewarding relationships. Relatedly, the present study's theoretical lens was based in attachment theory, which informed our position to investigate identity diffusion as a mediator of the relationship between parental closeness and borderline traits. However, alternative theoretical positions (e.g., developmental psychology) might suggest different study hypotheses and should therefore be explored in future research. Finally, it is noteworthy that while research utilizing the IOS in the context of BPD seems to suggest that the IOS taps into a measure of relationship closeness where healthy functioning is reflected by close circles and unhealthy relationships are indicated by distant circles, other measures of relationship function may instead show "enmeshed" relationships associated with personality pathology. Consequently, researchers should consider this impairment in self-other distinction that is characteristic of personality pathology when operationalizing intimacy.

Despite these limitations, the current study's findings uniquely contribute to the literature base on assessment of Criterion A constructs in adolescents. Moreover, the use of the IOS to assess parental closeness

is especially salient within developmental psychopathology research as it hones in onto a particular type of intimacy (parental closeness) that begins to change throughout adolescence as new peer and romantic relationships take the forefront, despite remaining critical for scaffolding optimal psychological and social-cognitive development. We contend that the IOS provides an efficient (it takes 1 min), simple, and developmentally appropriate way of assessing Criterion A Intimacy that sidesteps the limitations of self-report measures of intimacy, as "pictorial measures of this kind may bypass verbally encoded schemata that more strongly emphasize feeling close, and instead call forth a more deeply structured sense of self-other union" [(34), p. 610]. As the limitations of self-report measures may be especially pronounced for individuals with higher levels of personality pathology, the IOS is a promising tool for assessing aspects of personality pathology within this developmental stage.

## 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 Institutional Review Board of University of Houston. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

## Author contributions

The study was conceived by CS who wrote the introduction and discussion. BC, SK, and SV contributed to data collection, data cleaning, data management, data analyses, and write up of the results and methods. All authors contributed to the article and approved the submitted version.

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## 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.

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# Trajectories of adaptive and disturbed identity dimensions in adolescence: developmental associations with self-esteem, resilience, symptoms of depression, and borderline personality disorder features

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To advance our understanding of adolescents' identity formation and how it may play into their psychological functioning, this study investigated developmental trajectory classes of adaptive and disturbed dimensions of identity formation, and whether adolescents belonging to different trajectory classes develop differently on self-esteem, resilience, symptoms of depression, and borderline personality disorder (BPD) features. Three-wave longitudinal data from 2,123 Flemish adolescents was used (54.2% girls; $M_{age}$=14.64, range=12–18 at T1). Results pointed to four trajectory classes of identity formation: adaptive identity, identity progression, identity regression, and diffused identity. The adaptive identity class presented with stable high levels of self-esteem and resilience, and stable low levels of symptoms of depression and BPD, whereas opposite results were obtained for the diffused identity class. The identity progression class reported an increase in self-esteem and resilience as well as a decrease in symptoms of depression and BPD, whereas opposite results were obtained for the identity regression class. These results emphasize that adaptive and disturbed dimensions of identity formation are closely related to markers of well-being and psychopathology among adolescents, and could help identify adolescents with an increased risk for negative psychological functioning or increased opportunity for positive psychological functioning.

KEYWORDS

**identity, adolescence, self-esteem, resilience, depression, borderline**

# 1. Introduction

Identity formation is an essential developmental process in life, in which important changes commonly present at adolescence, a time when young individuals slowly transition from childhood to adulthood (1, 2). Identity formation has been increasingly linked to a wide array of indicators of psychosocial functioning and, more recently, to different psychiatric disorders, highlighting the transdiagnostic value and clinical relevance of identity functioning (3, 4). Nonetheless, research on identity development has particularly focused on normative identity processes in late adolescent samples, but has failed to chart *both* adaptive and disturbed dimensions of identity development in *early to late* adolescents. In addition, studies linking patterns of change in identity development to indicators of psychological functioning remain scarce. To address this gap, the present study investigated (1) developmental trajectories of adaptive and disturbed identity dimensions, (2) developmental trajectory classes of adaptive and disturbed identity dimensions, and (3) whether these classes develop differently on self-esteem, resilience, symptoms of depression, and borderline personality disorder (BPD) features in a large sample of early to late adolescents.

## 1.1. Adaptive and disturbed dimensions of identity formation in adolescence

Stimulated by physical, cognitive, social, and emotional maturation, young individuals entering adolescence generally feel inclined to rethink their childhood identifications and construct a more mature identity (2). Such a mature identity is expected to include a stable and personal set of goals, values, and beliefs, providing the individual with a sense of coherence and continuity, and guiding their future behavior and decision-making. For Marcia (5), a process of exploring different identity alternatives and then committing to one or more of these alternatives represents the most adaptive and effective way to develop such an identity (6). For many, this process may entail feelings of confusion, doubt, and discomfort, referred to as the identity crisis (2, 5). However, most adolescents are able to eventually work through this crisis and construct a personal identity that provides them with a sense of coherence and meaning (i.e., identity synthesis). Nevertheless, some adolescents may continue to struggle with contradictory feelings about their goals, values, and beliefs, and, often as a result, seem unable to settle on a personal identity [i.e., identity confusion; 2, 7].

Studies investigating the longitudinal development of a sense of identity synthesis or confusion in adolescence are scarce and have produced inconsistent findings. A recent three-wave longitudinal study indicated that young individuals' sense of identity synthesis first decreased and then increased towards the end of adolescence, whereas their sense of identity confusion linearly increased throughout adolescence (8). Differently, results from a cohort-sequential study by Schwartz et al. (9) indicated no significant changes in identity synthesis and a linear decrease in identity confusion throughout adolescence. Still other results pointed to significant variability in young individuals' sense of identity synthesis, but no significant changes in their sense of identity confusion during adolescence (10). The majority of research on identity development has studied changes in identity status or identity processes of exploration and commitment in late adolescent and (young) adult samples (see 11–13). Generally, this line of research suggested that most adolescents either indicate no change in identity status or identity processes, or increasingly develop a synthesized identity comprising stable identity commitments.

In addition to these variable-centered results, researchers have also adopted person-centered approaches to identify different developmental pathways of identity formation. Previous research on the development of a sense of identity in adolescence is limited to one study, which extracted five classes: a stable high synthesis and low confusion trajectory (20.4%), a stable low synthesis and high confusion trajectory (14.8%), a stable low synthesis and low confusion trajectory (4.7%), a high synthesis and high confusion with increases in synthesis and confusion trajectory (3.2%), and a moderate synthesis and moderate confusion with a slight increase in confusion trajectory (56.9%) (8). Whereas the first three classes seem to represent individuals who are, respectively, in a state of identity synthesis, identity confusion, or neither (possibly because they are (still) unconcerned with identity questions), the high synthesis and high confusion class may include adolescents who are actively working on their identity with strong conflict, whereas the moderate synthesis and confusion class may include adolescents who deal with a milder degree of conflict. Previous research on trajectory classes of identity exploration and commitment processes has been mostly carried out in emerging or young adults. For instance, Luyckx et al. (14) identified five trajectory classes among college students and employed individuals (i.e., achievement, foreclosure, moratorium, carefree diffusion, and troubled diffusion), each showing differential levels of and changes in exploration and commitment. Yet, recently, de Moor et al. (15) uncovered stable, progressive, and regressive classes of identity status change among early to late adolescents, reporting, respectively, no, positive, and negative changes in identity development throughout adolescence. Although current variable- and person-centered studies have generated important insights into how and when most adolescents develop a sense of identity, they remain predominantly focused on normative and behavioral processes involved in identity development, and fail to chart the development of potential clinical identity problems in community adolescents.

Attending to severe and potential clinical identity problems in adolescents seems important for several reasons. First, studies increasingly show that, in addition to developmentally-appropriate feelings of identity confusion, adolescents also struggle with identity problems such as lacking a sense of inner coherence, feeling a sense of discontinuity, and feeling broken or empty inside (16–19). Second, current dimensional classifications of psychopathology include problems related to self and identity as key constituent elements of personality pathology. In the DSM-5 Alternative Model for Personality Disorders, the presence and severity of personality pathology is determined by assessing disturbances in identity and self-direction (20). Sharp et al. (21) recently showed that impaired self and identity functioning is a significant indicator of BPD features in community-dwelling and clinically-referred adolescents. Third, studies in adolescents increasingly associate identity problems with a wide range of clinical disorders such as social–emotional disorders (3) and body-related disorders (e.g., eating disorders, body dissatisfaction, and non-suicidal self-injury; 19, 22, 23). Knowing how such identity problems develop may facilitate the identification (and, if necessary, treatment) of adolescents who deviate from more normative patterns of identity formation. But despite the transdiagnostic value and

clinical relevance of identity, research investigating the development of clinical identity problems in adolescents is virtually absent.

As a way to advance such research and overcome the shortcomings of previous instruments that focus either on adaptive or disturbed dimensions of identity formation, scholars have developed instruments that are well suited to capture both adaptive and disturbed identity dimensions (17, 24). Kaufman et al. (24) constructed the Self-Concept and Identity Measure (SCIM), which was initially created to assess identity functioning in adults, but for which psychometric properties were established in adolescents later on (16). More so, the SCIM seems well suited to longitudinally assess identity development in adolescents (16). Starting from a developmental psychopathology perspective, the SCIM assesses identity in its healthy and disturbed dimensions. Individuals scoring high on *consolidated identity* reportedly experience a high degree of self-continuity, feel integrated and whole, and feel confident about who they are. These feelings are considered to be the result of having established stable identity commitments and self-defining roles, allowing individuals to navigate major life tasks (24). Individuals scoring high on *disturbed identity* reportedly experience a variety of identity problems including typical periods of uncertainty and more severe feelings of identity disturbance. Finally, clinical descriptions have alluded to an extremely maladaptive variant of identity, distinct from the more common presentation of a disturbed identity. This so-called *lack of identity* refers to feelings of inner emptiness, being broken, and feeling lost when thinking about who one is.

## 1.2. Identity formation and psychological functioning

Consistent with leading theories on psychosocial development (2, 25, 26), research has evidenced the close interconnectedness of identity and psychological well-being. For instance, adolescents who experience high levels of identity synthesis or who have made certain identity-related choices are more likely to experience high levels of life satisfaction (8), self-esteem (14, 27), and warm and supportive relationships (28) than adolescents who experience high levels of identity confusion or who have not yet enacted stable identity commitments.

Yet, a larger body of research has concentrated on how (problems in) identity formation relate to negative psychological functioning in adolescence as this life stage represents a critical time for the development of psychopathology (29). Generally, studies have demonstrated negative associations between identity synthesis and symptoms of depression, anxiety, eating disorders, and non-suicidal self-injury, as well as positive associations between identity confusion and these disorders (3, 23, 30). More so, as it is now increasingly assumed that features of personality disorders may already be present in adolescence (31–33), research on identity and (B)PD in adolescence is emerging. BPD is characterized by pervasive instability in affect, interpersonal relationships, and identity, and is marked by emotion dysregulation, impulsivity, and chronic feelings of emptiness (20). BPD is increasingly considered to be multifaceted, with different types having different developmental and neurobiological underpinnings (34, 35). So far, studies on identity and BPD in adolescents have evidenced that adaptive identity functioning is associated with low levels of (B)PD features, whereas disturbed identity functioning is associated with high levels of (B)PD features (16, 36). Furthermore, disturbed identity functioning and BPD features appear to become more closely associated with increasing age throughout adolescence (37). But as much as this line of research indicates the importance and clinical relevance of identity development, it does not allow us to determine which specific developmental patterns of identity formation are most closely related to both positive and negative psychological functioning throughout adolescence.

## 1.3. Hypotheses

The present study addressed three research objectives to increase our understanding of identity development and its associations with psychological functioning during adolescence. First, we investigated how both adaptive and disturbed identity dimensions (i.e., consolidated identity, disturbed identity, and lack of identity) develop across a time interval of 2 years in adolescent boys and girls. As previous research has obtained inconsistent findings regarding the development of normative identity dimensions (8, 10, 38) and there is a dearth of research on the development of clinically relevant identity dimensions, our hypotheses were based on leading identity theory (2, 7, 39). Generally, we expected to observe a linear increase in consolidated identity, as well as linear decreases in disturbed identity and/or lack of identity.

Second, we investigated whether we could identify different developmental trajectory classes of adaptive and disturbed identity dimensions in adolescent girls and boys. Building upon previous research (8, 9, 15), we tentatively expected to find classes characterized by (1) a stable high consolidated identity and stable low disturbed identity and/or lack of identity, (2) a stable low consolidated identity and stable high disturbed identity and/or lack of identity, (3) stable low identity dimensions, (4) stable high identity dimensions, and (5) respective increases and/or decreases in consolidated identity, and disturbed identity and/or lack of identity, or vice versa. However, as these studies (1) had a narrow focus on normative identity dimensions, (2) were carried out in adolescents being of different nationalities (i.e., Japanese, Hispanic, or Dutch nationalities), and (3) used different identity measures [i.e., the identity subscale from the Erikson Psychological Stage Inventory (EPSI) (7, 40) or the Utrecht-Management of Identity Commitments Scale (U-MICS) (41)], no definite hypotheses could be formulated.

Third, we investigated whether adolescents belonging to different trajectory classes developed differently on self-esteem, resilience (i.e., the ability to bounce back or recover from stress; 42). The text ‘symptoms of depression, and BPD features. Based on theory and previous research (2, 3, 14, 16, 26, 27, 37, 43), we hypothesized that classes with a stable high level of consolidated identity and stable low levels of disturbed identity and/or lack of identity would report high and/or increasing levels of self-esteem and resilience as well as low and/or decreasing levels of symptoms of depression and BPD. Opposite results were expected for classes with a stable low level of consolidated identity and stable high levels of disturbed identity and/or lack of identity. In addition, we hypothesized that classes with an increasing level of consolidated identity and decreasing levels of disturbed identity and/or lack of identity would report increasing levels of self-esteem and resilience, and decreasing levels of symptoms of depression and BPD, whereas opposite results were expected for classes with,

respectively, decreasing and increasing levels of consolidated, disturbed and/or lack of identity.

As previous cross-sectional research has pointed to sex differences in mean scores on identity dimensions, symptoms of depression, BPD features (16, 30), and self-esteem (44), we conducted the primary analyses in the total group as well as in girls and boys separately. Specifically, as girls seem to be more prone to experience identity-related problems, we hypothesized to observe trajectory classes characterized by lower baseline levels of consolidated identity, as well as higher baseline levels of disturbed identity and/or lack of identity. In the absence of consistent previous research, no hypotheses on sex differences in slopes for identity dimensions could be formulated.

# 2. Materials and methods

## 2.1. Participants and procedure

The present study is part of the Longitudinal Identity research in Adolescence (LIA) project (45), a three-wave longitudinal study that was carried out in January 2018 (T1), January 2019 (T2), and January–February 2020 (T3). Data were collected in high school students recruited from eight secondary high schools in Flanders, the Dutch-speaking part of Belgium. Prior to data collection, school staff distributed an information letter and informed consent form among the students' parents, as parental consent was required for participation of minor students. Data were collected during school hours in the presence of the researchers. In all schools, students completed the questionnaires using paper and pencil and were requested to hand in their completed questionnaires in a sealed envelope to one of the researchers. We administered two different versions of our survey to not overburden students and because they had to be able to finish the survey within one period. Whereas some questionnaires were administered to all participating students, some questionnaires were administered to approximately 25% or 75% of high school students. At all measurement points, students who graduated, switched to another school, or were absent on the day of data collection were contacted by letter and e-mail and were invited to complete the questionnaires online. Students who completed the questionnaires received a movie ticket as compensation. To ensure confidentiality and anonymity, and to match data across measurement points, students' names were replaced by a unique code number. The present study was approved by the ethical committee of the Faculty of Psychology and Educational Sciences of KU Leuven.

At T1, a total of 3,483 high school students were contacted to participate in the LIA study. Of those who were contacted, a total of 2,313 students (66.4%) received active parental consent, of which 2,161 students actually agreed to participate in the study (response rate = 93.5%; 53.93% girls; $M_{age}$ = 14.58, $SD$ = 1.88, range = 10–21). At T2, a total of 1929 students participated (retention rate = 89.26%; 55.21% girls; $M_{age}$ = 15.61, $SD$ = 1.83, range = 11–22). Finally, T3 included a total of 1751 students (retention rate = 90.77%; 56.25% girls; $M_{age}$ = 16.57, $SD$ = 1.83, range = 12–23). For the present study, students younger than 12 and older than 18 at T1 were excluded from the sample as they were largely underrepresented. Eventually, this study included 2,123 students at T1 (54.2% girls; $M_{age}$ = 14.64, $SD$ = 1.81, range = 12–18), 1898 students at T2 (55.4% girls; $M_{age}$ = 15.58, $SD$ = 1.77, range = 13–19), and 1723 students at T3 (56.5% girls, $M_{age}$ = 16.55, $SD$ = 1.77, range = 14–20). At T1, 92.65% of the students self-reported being of Belgian nationality, 5.22% of Dutch nationality, 1.43% of another nationality, and for 0.7% information was missing. In Belgium, children generally start secondary education at age 12. The first 2 years (i.e., seventh and eighth grade), they all follow a general track. From the third year on, they can choose between general education, technical education, or art education, all of which prepare them for higher education (if desired). At T1, 34.6% of the students were in the seventh and eighth grade and followed the general track. The remaining students were in the ninth to twelfth grade and followed the general track (20.3%), the technical track (26.1%), or the arts track (19.1%) of secondary education. Finally, 68% of the students reported being part of an intact family, 20.1% reported their parents being divorced, 6.7% reported being part of a reconstituted family, 1.6% reported that one of their parents had deceased, and for 2.8% information was missing.

## 2.2. Measures

**Identity functioning**. All participants completed the Dutch translation of the Self-Concept and Identity Measure (SCIM; 24, 46) at all measurement points to assess adaptive and disturbed dimensions of identity formation. The SCIM consists of 27 self-report items measuring three subscales: consolidated identity ($n$ = 10; e.g., *'I always have a good sense about what is important to me'*), disturbed identity ($n$ = 11; e.g., *'The things that are most important to me change pretty often'*), and lack of identity ($n$ = 6; e.g., *'I feel empty inside, like a person without a soul'*). Items are rated on a 7-point Likert scale ranging from 1 (completely disagree) to 7 (completely agree). Although we administered the Dutch translation of the original 27-item SCIM, analyses of the present study were conducted using a 23-item version of the SCIM, which was previously validated among these Flemish adolescents (16). In this study, Cronbach's alpha coefficients for consolidated identity, disturbed identity, and lack of identity were, respectively, 0.75, 0.82, and 0.92 at T1, 0.78, 0.84, and 0.92 at T2, and 0.79, 0.85, and 0.92 at T3.

**Self-esteem**. All students completed the Dutch version of the Rosenberg Self-Esteem Scale (RSES; 47) at all measurement points to assess their self-esteem. The RSES comprises 10 items measuring global self-esteem by assessing both positive and negative feelings about the self (e.g., *'I feel that I have a number of good qualities'*). All items are rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). In the present study, Cronbach's alpha coefficients for self-esteem were 0.89 at T1, 0.90 at T2, and 0.90 at T3.

**Resilience**. All students completed the Dutch translation of the Brief Resilience Scale (BRS-NL; 42, 48) at all measurement points. The BRS consists of 6 items, to be rated on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree), which measure one's perceived ability to bounce back or recover from stress (e.g., *'It is hard for me to snap back when something bad happens'*). Previous research has demonstrated that the BRS produces valid and reliable scores among student samples (48). In the present study, Cronbach's alpha coefficients for resilience were 0.88 at T1, 0.90 at T2, and 0.91 at T3.

**Symptoms of depression**. At every measurement point, symptoms of depression were assessed using the depression subscale of the Symptom Checklist-90 (SCL-90; 49). The SCL-90 is a self-report

questionnaire developed to measure a broad range of mental and physical problems. The depression subscale consists of 16 items (e.g., *'Feeling hopeless about the future'*). Students are asked to indicate to what extent the items reflect their feelings or behavior of the past week. All items are rated on a 5-point scale ranging from 1 (not at all) to 5 (extremely). The depression subscale of the SCL-90 appears to produce reliable and structurally valid test scores (50). In the present study, Cronbach's alpha coefficients for depression were 0.93 at T1, 0.94 at T2, and 0.94 at T3.

**Borderline personality disorder features**. Close to 75% of our sample ($n = 1,540$ at T1) completed the Borderline Personality Features Scale for Children (BPFS-C; 51) at all measurement points. The BPFS-C consists of 11 self-report items to be rated on a scale from 1 (not true at all) to 5 (always true; e.g., *'I go back and forth between different feelings, like being mad or sad or happy'*). In the present study, Cronbach's alpha coefficients for borderline personality disorder features were 0.85 at T1, 0.86 at T2, and 0.85 at T3.

## 2.3. Statistical analyses

Preliminary analyses were conducted using IBM SPSS Statistics version 27. First, we computed descriptive statistics of all study variables (i.e., means, standard deviations, and minima and maxima) for the total group. Second, we investigated sex differences in study variables at T1 by conducting (1) a multivariate analysis of variance (MANOVA) with sex as a fixed factor and consolidated identity, disturbed identity, lack of identity, self-esteem, resilience, and symptoms of depression as dependent variables ($N = 2,123$), and (2) a univariate analysis of variance (ANOVA) with sex as a fixed factor and BPD features at T1 as a dependent variable ($N = 1,540$). If a significant Wilks' Lambda (λ) was obtained for the MANOVA, Bonferroni corrected univariate post hoc tests (to adjust for multiple comparisons) were considered. Third, associations between study variables at T1 and age were investigated using Pearson correlations. Correlations were considered statistically significant at the $p < 0.007$ level after Bonferroni adjustment (i.e., the pre-specified level of significance, $p = 0.05$, was divided by the number of simultaneously tested hypotheses, which is 7; 52). Fourth, associations among study variables were investigated using Pearson correlations as well and were considered significant at the $p < 0.002$ level (i.e., $p < 0.05$ divided by 21) after Bonferroni adjustment.

Primary analyses were conducted in Mplus version 8.0 (53). Full Information Maximum Likelihood (FIML) estimation was used, which provides unbiased parameter estimates in case data are missing at random or missing completely at random (54, 55). Furthermore, as sample size calculations for Structural Equation Models (SEM) indicated that a sample size of 981 adolescents would allow us to detect effect sizes as small as 0.15 with a power of 0.80, developmental trajectories could be estimated within a SEM framework (56). First, we performed multivariate Latent Growth Curve Modeling (LGCM) to examine developmental trajectories of identity dimensions using maximum likelihood estimation with robust standard errors (MLR). LGCM is a variable-centered approach as it estimates intra-individual growth trajectories by specifying the mean and variance of two latent growth factors: intercept (or initial level) and slope (or rate of change; 57). As variables were assessed at three measurement points that were equally spaced in time (time intervals of 1 year), factor loadings of slopes were fixed to 0, 1, and 2 for T1, T2, and T3, respectively. Model fit was evaluated by means of the following four fit indices: (1) the Satorra-Bentler chi-square index (S-B$\chi^2$), which should be as small as possible, (2) the Comparative Fit Index (CFI), which should exceed 0.90 and preferably 0.95 for excellent fit, (3) the Root Mean Square Error of Approximation (RMSEA), which should be below 0.08 and preferably below 0.05 for excellent fit, and (4) the Standardized Root Mean Square Residual (SRMR), which should be below 0.10 (58–60). To compare boys and girls with regard to their trajectories of identity dimensions, a multi-group analysis was conducted. In essence, we compared a multivariate LGC model in which the estimated growth parameters of the developmental trajectories could vary among boys and girls (i.e., an unconstrained model) to models in which these growth parameters were constrained to be equal across sex (i.e., constrained models). We considered two constrained models: (1) a model in which the intercepts were constrained to be equal across sex and (2) a model in which the slopes were considered to be equal across sex. To compare model fit of the unconstrained model to model fit of the constrained models, S-B$\chi^2$ difference tests were considered (60).

Second, we performed multivariate Growth Mixture Modeling (GMM) for the total group and separately for boys and girls to identify trajectory classes of identity dimensions. GMM is a person-centered approach in which individuals are probabilistically assigned to latent classes based upon similar patterns of responses on specified variables (61). As GMM assumes individual growth trajectories to be heterogeneous within classes, the variance of intercept and slope within a class is freely estimated. Four criteria were used to determine the optimal number of classes (53): (1) the Bayesian Information Criterion (BIC) statistic for a solution with *k* classes should be lower than for a solution with *k-1* classes, (2) the Entropy (E) statistic, for which values should exceed 0.75 to indicate accurate classification (or high classification quality), as it represents the accuracy with which individuals are assigned to the classes based upon the posterior classification probabilities (62), (3) the bootstrapped Likelihood Ration Test (b-LRT), for which significant *p*-values indicate significantly improved model fit through including an additional class, and (4) proportions for the latent classes, which should cover at least 1% of the sample (63). Finally, to find a meaningful solution, class enumeration was ultimately determined by these fit indices in combination with theoretical justification, parsimony, and interpretability (64). After an accurate class solution was found, participants were assigned to the class for which their posterior probability of membership was highest.

Third, we performed multi-group LGCM to investigate whether individuals belonging to different trajectory classes developed differently on self-esteem, resilience, symptoms of depression, and BPD features. First, for each outcome variable separately, a fully unconstrained model was estimated in which intercept and slope could vary across classes. Model fit was evaluated by the S-B$\chi^2$, CFI, RMSEA, and SRMR indices. Second, we estimated models in which intercepts were held equal across classes, followed by models in which slopes were held equal across classes. Using S-B$\chi^2$ difference tests, we compared model fit of the unconstrained model to model fit of the two constrained models. If the fit of the constrained models was significantly poorer than the fit of the unconstrained model, this would indicate that classes differed significantly on intercept and/or slope. If significant differences were detected, intercepts and slopes

were fixed in a pairwise manner across classes and S-B$\chi^2$ difference tests were used to uncover which intercepts and/or slopes differed from one other.

# 3. Results

## 3.1. Preliminary analyses

Table 1 presents the descriptive statistics of study variables and sex differences in study variables. The MANOVA revealed significant sex differences at T1 (Wilks' $\lambda = 0.840$, $F(6, 2012) = 64.001$, $p < 0.001$, partial $\eta^2 = 0.160$). Specifically, and as detailed in Table 1, boys reported higher mean levels of consolidated identity, self-esteem, and resilience, as well as lower mean levels of disturbed identity, lack of identity, and symptoms of depression as compared to girls. The ANOVA indicated significant sex differences in BPD features at T1, with girls reporting higher mean levels of BPD features than boys. Associations between variables and age, and among variables at T1 are shown in Table 2. Consolidated identity and self-esteem were negatively associated with age, whereas lack of identity, symptoms of depression, and BPD features were positively associated with age. Disturbed identity and resilience were not significantly associated with age. Finally, at T1, consolidated identity was negatively associated with disturbed identity, lack of identity, symptoms of depression, and BPD features, and positively associated with self-esteem and resilience. Alternatively, disturbed identity and lack of identity were negatively associated with consolidated identity, self-esteem, and resilience, and positively associated with one another, symptoms of depression, and BPD features. The high zero-order correlations of lack of identity with symptoms of depression and BPD features could possibly be caused by overlap in the underlying construct that they intend to measure (e.g., they all allude to feelings of emptiness). However, removing items that expressed similar content across these measures did not meaningfully change the obtained correlations.

## 3.2. Developmental trajectories of identity formation

The multivariate LGC model in the total group initially indicated unacceptable model fit (S-B$\chi^2(18) = 643.896$, $p < 0.001$; CFI = 0.918; RMSEA = 0.128 with 90% CI [0.120–0.137]; SRMR = 036). After including two error correlations between identity dimensions at T2 (i.e., between consolidated identity and lack of identity, and between disturbed identity and lack of identity) as suggested by the modification indices, the multivariate LGC model had a good fit (S-B$\chi^2(16) = 141.205$, $p < 0.001$; CFI = 0.984; RMSEA = 0.061 with 90% CI [0.052–0.070]; SRMR = 0.024). Table 3 presents means and variances of intercepts and slopes for all identity dimensions. Means and variances of all intercepts were significant, indicating substantial individual differences in identity dimensions at baseline. Mean slopes of disturbed identity and lack of identity were also significant, suggesting substantial change at a group level. More specifically, disturbed identity linearly decreased, whereas lack of identity linearly increased over time. The mean slope for consolidated identity was 0.02, $p = 0.107$, suggesting no significant linear change over time.

Regarding associations among intercepts of identity dimensions, the intercept of consolidated identity was negatively associated with the intercepts of disturbed identity ($r = -0.49$, $p < 0.001$) and lack of identity ($r = -0.88$, $p < 0.001$), whereas the intercepts of disturbed identity and lack of identity were positively associated ($r = 0.87$, $p < 0.001$). These correlations reflected the correlational pattern of identity dimensions at T1, presented in Table 2. Regarding associations among slopes of identity dimensions, the slope of consolidated identity was negatively related to the slopes of disturbed identity ($r = -0.08$, $p < 0.001$) and lack of identity ($r = -0.18$, $p < 0.001$), whereas the slopes of disturbed identity and lack of identity were positively associated with one another ($r = 0.17$, $p < 0.001$).

In comparing girls and boys with regard to their developmental trajectories of identity formation, model fit comparison between the unconstrained model [S-B$\chi^2(32) = 174.043$, $p < 0.001$; CFI = 0.981; RMSEA = 0.065 with 90% CI [0.055–0.074]; SRMR = 0.027] and the constrained models in which intercepts [S-B$\chi^2(35) = 312.639$, $p < 0.001$; CFI = 0.962; RMSEA = 0.086 with 90% CI [0.078–0.095]; SRMR = 0.083] or slopes [S-B$\chi^2(35) = 179.354$, $p < 0.001$; CFI = 0.980; RMSEA = 0.062 with 90% CI [0.053–0.072]; SRMR = 0.028] were held equal across sex, indicated that the slopes could be fixed across sex [$\Delta$S-B$\chi^2(3) = 3.431$, $p = 0.330$]. Model fit was significantly worse when constraining intercepts across sex [$\Delta$S-B$\chi^2(3) = 155.355$, $p < 0.001$], as the intercept of consolidated identity was lower and the intercepts of disturbed identity and lack of identity higher in girls as compared to boys. Means and variances of intercepts and slopes for boys and girls separately can be found in Table 3.

TABLE 1 Descriptive statistics and sex differences in study variables at Time 1.

| | Total group | | Girls | Boys | *F* | *df* | Partial $\eta^2$ |
|---|---|---|---|---|---|---|---|
| | *M (SD)* | Min – Max | *M (SD)* | *M (SD)* | | | |
| Consolidated identity | 4.82 (0.98) | 1.29–7.00 | 4.65 (1.00) | 5.03 (0.90) | 80.40*** | 1, 2017 | 0.038 |
| Disturbed identity | 3.04 (1.00) | 1.00–6.80 | 3.18 (1.01) | 2.88 (0.98) | 44.93*** | 1, 2017 | 0.022 |
| Lack of identity | 2.38 (1.43) | 1.00–7.00 | 2.72 (1.56) | 1.99 (1.14) | 140.07*** | 1, 2017 | 0.065 |
| Self-esteem | 2.87 (0.59) | 1.00–4.00 | 2.72 (0.60) | 3.06 (0.51) | 178.46*** | 1, 2017 | 0.081 |
| Resilience | 3.16 (0.90) | 1.00–5.00 | 2.86 (0.86) | 3.52 (0.81) | 309.55*** | 1, 2017 | 0.133 |
| Symptoms of depression | 1.85 (0.81) | 1.00–5.00 | 2.09 (0.88) | 1.57 (0.61) | 221.43*** | 1, 2017 | 0.099 |
| BPD features | 1.55 (0.74) | 0.00–3.82 | 1.73 (0.73) | 1.30 (0.68) | 137.51*** | 1, 1,528 | 0.083 |

*M* = mean; *SD* = standard deviation.***$p < 0.001$.

TABLE 2 Zero-order Pearson correlations between study variables and age, and among study variables at Time 1.

| | Age | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 1. Consolidated identity | −0.07*** | −0.50*** | −0.64*** | 0.69*** | 0.43*** | −0.56*** | −0.52*** |
| 2. Disturbed identity | −0.01 | - | 0.62*** | −0.56*** | −0.42*** | 0.52*** | 0.65*** |
| 3. Lack of identity | 0.15*** | | - | −0.76*** | −0.53*** | 0.81*** | 0.74*** |
| 4. Self-esteem | −0.12*** | | | - | 0.53*** | −0.72*** | −0.69*** |
| 5. Resilience | −0.03 | | | | - | −0.55*** | −0.55*** |
| 6. Symptoms of depression | 0.16*** | | | | | - | 0.74*** |
| 7. BPD features | 0.25*** | | | | | | - |

***$p < 0.001$.

TABLE 3 The mean and variance of intercepts and slopes for identity dimensions.

| | Total group | | Girls | | Boys | |
|---|---|---|---|---|---|---|
| Identity dimensions | Mean | Variance | Mean | Variance | Mean | Variance |
| **Intercepts** | | | | | | |
| Consolidated identity | 4.82*** | 0.72*** | 4.64*** | 0.76*** | 5.03*** | 0.58*** |
| Disturbed identity | 3.04*** | 0.76*** | 3.18*** | 0.79*** | 2.88*** | 0.67*** |
| Lack of identity | 2.40*** | 1.82*** | 2.74*** | 2.15*** | 1.99*** | 1.12*** |
| **Linear slopes** | | | | | | |
| Consolidated identity | 0.02 | 0.14*** | 0.02 | 0.16*** | 0.02 | 0.11*** |
| Disturbed identity | −0.06*** | 0.13*** | −0.04** | 0.14*** | −0.07*** | 0.11*** |
| Lack of identity | 0.06*** | 0.37*** | 0.04 | 0.45*** | 0.07** | 0.28*** |

**$p < 0.01$. ***$p < 0.001$.

## 3.3. Trajectory classes of identity formation

Table 4 presents the fit indices and trajectory class prevalence rates for GMM solutions with one through six classes for the total group. The 4-class solution was favored based on the fit indices and theoretical considerations. The first class (69.92%) was labeled *adaptive identity* as this class consisted of adolescents with a high initial level of consolidated identity, low initial levels of disturbed identity and lack of identity, a linear increase in consolidated identity, and a linear decrease in disturbed identity. The second class (7.83%) was labeled *identity progression* as individuals belonging to this class demonstrated a moderate initial level of consolidated identity, moderate to high initial levels of disturbed identity and lack of identity, a linear increase in consolidated identity, and linear decreases in disturbed identity and lack of identity. The third class (10.42%), labeled *identity regression,* consisted of adolescents with a high initial level of consolidated, a moderate initial level of disturbed identity, a low initial level of lack of identity, a linear decrease in consolidated identity, and linear increases in disturbed identity and lack of identity. The fourth class (11.83%) was labeled *diffused identity* as individuals belonging to this class chronically demonstrated moderate levels of consolidated identity and disturbed identity, and a high level of lack of identity. Mean intercepts and slopes for identity dimensions in the 4-class solution can be found in Table 5 and are visualized in Figure 1. We opted for the 4-class solution as the 5-class solution revealed classes of which some were merely slight variations of a similar class and did not add substantive meaning. For instance, the 5-class solution revealed two diffused identity-like classes. Both displayed stable moderate levels of consolidated identity ($M_{intercepts}$ of 3.73 and 3.65), stable moderate to high levels of disturbed identity ($M_{intercepts}$ of 3.95 and 4.01), and stable high levels of lack of identity ($M_{intercepts}$ of 5.51 and 4.97) with small differences in intercept levels.

Girls and boys were unequally distributed across classes [$\chi^2(3) = 111.61$, $p < 0.001$]. Girls were underrepresented in the adaptive identity class (47%) and overrepresented in the identity progression (77%), identity regression (62%), and diffused identity (74%) classes. As LGCM pointed to significant differences in girls' and boys' levels of identity dimensions at baseline (see Table 3), GMM was also performed for girls and boys separately. The fit indices and trajectory class prevalence rates for one through six class-solutions for girls and boys are displayed in Table 4. Consistent with the total group, we selected the 4-class solution in girls and boys in which classes again represented adaptive identity, identity progression, identity regression, and diffused identity. The adaptive class represented 62.87% of girls and 75.50% of boys, the identity progression class represented 10.96% of girls and 13.49% of boys, the identity regression class represented 10.17% of girls and 9.78% of boys, and the diffused identity class represented 16% of girls and 4.22% boys. Mean intercepts and slopes for the identity dimensions in the 4-class solution in girls and boys can be found in Table 5.

## 3.4. Linking trajectory classes of identity formation to indicators of psychological functioning

Table 6 presents all parameter estimates of the multi-group LGCM of self-esteem, resilience, symptoms of depression, and

TABLE 4 Fit indices for different Growth Mixture Models for the total group, girls and boys.

| | | | | Trajectory class prevalence (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Solution | BIC | E | b-LRT | 1 | 2 | 3 | 4 | 5 | 6 |
| Total group | | | | | | | | | |
| 1 | 42827.080 | | | 100.00 | | | | | |
| 2 | 42188.118 | 0.88 | $p < 0.001$ | 80.39 | 19.61 | | | | |
| 3 | 41913.784 | 0.89 | $p < 0.001$ | 70.11 | 20.37 | 9.52 | | | |
| 4 | **41817.553** | **0.85** | ***p* < 0.001** | **10.42** | **69.92** | **7.83** | **11.83** | | |
| 5 | 41727.440 | 0.83 | $p < 0.001$ | 8.96 | 16.55 | 4.90 | 8.06 | 61.53 | |
| 6 | 41618.952 | 0.84 | $p < 0.001$ | 8.96 | 5.52 | 11.27 | 8.30 | 4.20 | 61.76 |
| Girls | | | | | | | | | |
| 1 | 24205.562 | | | 100.00 | | | | | |
| 2 | 23960.477 | 0.84 | $p < 0.001$ | 26.17 | 73.83 | | | | |
| 3 | 23882.841 | 0.85 | $p < 0.001$ | 62.52 | 12.70 | 24.83 | | | |
| **4** | **23861.973** | **0.81** | ***p* < 0.001** | **10.17** | **10.96** | **62.87** | **16.00** | | |
| 5 | 23844.529 | 0.82 | $p < 0.001$ | 9.57 | 8.34 | 61.57 | 15.22 | 5.30 | |
| 6 | 23830.718 | 0.81 | $p < 0.001$ | 10.78 | 4.61 | 8.87 | 54.52 | 7.48 | 13.74 |
| Boys | | | | | | | | | |
| 1 | 18380.382 | | | 100.00 | | | | | |
| 2 | 18059.291 | 0.92 | $p < 0.001$ | 84.45 | 15.55 | | | | |
| 3 | 17931.377 | 0.92 | $p < 0.001$ | 17.30 | 77.03 | 5.66 | | | |
| **4** | **17863.583** | **0.88** | ***p* < 0.001** | **72.50** | **4.22** | **13.49** | **9.78** | | |
| 5 | 17781.020 | 0.89 | $p < 0.001$ | 9.06 | 68.90 | 2.37 | 15.35 | 4.33 | |
| 6 | 17748.723 | 0.90 | $p < 0.001$ | 2.27 | 3.50 | 2.47 | 15.14 | 8.24 | 68.38 |

The selected class-solutions are presented in bold.

BPD features in girls and boys. First, for self-esteem, the unconstrained model had a good fit in girls [S-B$\chi^2(4) = 9.464$, $p = 0.051$; CFI = 0.992; RMSEA = 0.069 with 90% CI [0.000–0.127]; SRMR = 0.017] and an excellent fit in boys [S-B$\chi^2(4) = 6.914$, $p = 0.141$; CFI = 0.996; RMSEA = 0.055 with 90% CI [0.000–0.122]; SRMR = 0.021]. Model fit comparison indicated that constraining the intercepts as equal across classes was not allowed in girls [$\Delta$S-B$\chi^2(3) = 392.184$, $p < 0.001$] or boys [$\Delta$S-B$\chi^2(3) = 184.668$, $p < 0.001$]. Similarly, constraining the slopes as equal across classes was not allowed in girls [$\Delta$S-B$\chi^2(3) = 264.071$, $p < 0.001$] or boys [$\Delta$S-B$\chi^2(3) = 148.151$, $p < 0.001$]. In girls, follow-up analyses indicated that all pairs of intercepts differed from one another, except for the intercepts of identity progression and diffused identity classes [$\Delta$S-B$\chi^2(1) = 1.287$, $p = 0.257$], in which girls reported the lowest levels of self-esteem at baseline. Girls in adaptive identity and identity regression classes reported higher levels of self-esteem at baseline, with girls in the adaptive identity class reporting the highest self-esteem. Furthermore, in girls, all pairs of slopes differed from one another, except for the slopes of adaptive identity and diffused identity classes [$\Delta$S-B$\chi^2(1) = 1.064$, $p = 0.302$], in which girls demonstrated relatively stable levels of self-esteem. Differently, girls in the identity progression class seemed to increase in self-esteem, whereas girls in the identity regression class seemed to decrease in self-esteem. In boys, follow-up analyses indicated that all pairs of intercepts and slopes differed from one another.

Second, for resilience, the unconstrained model had an excellent fit in girls [S-B$\chi^2(4) = 7.149$, $p = 0.128$; CFI = 0.995; RMSEA = 0.052 with 90% CI [0.000–0.113]; SRMR = 0.017] and boys [S-B$\chi^2(4) = 7.029$, $p = 0.134$; CFI = 0.993; RMSEA = 0.056 with 90% CI [0.000–0.123]; SRMR = 0.028]. Constraining the intercepts as equal across classes was again not allowed in girls [$\Delta$S-B$\chi^2(3) = 133.188$, $p < 0.001$] or boys [$\Delta$S-B$\chi^2(3) = 80.081$, $p < 0.001$]. Similarly, constraining the slopes to be equal across classes significantly worsened model fit in girls [$\Delta$S-B$\chi^2(3) = 77.290$, $p < 0.001$] and boys [$\Delta$S-B$\chi^2(3) = 50.272$, $p < 0.001$]. In girls, only adaptive identity and identity regression classes [$\Delta$S-B$\chi^2(1) = 0.092$, $p = 0.762$], and identity progression and diffused identity classes [$\Delta$S-B$\chi^2(1) = 2.075$, $p = 0.150$] did not differ from one another regarding initial levels of resilience. Furthermore, all pairs of slopes differed from one another, except for the slopes of adaptive identity and diffused identity classes [$\Delta$S-B$\chi^2(1) = 0.312$, $p = 0.577$], in which girls demonstrated, respectively, stable high and low levels of resilience over time. Girls in the identity progression class seemed to increase in resilience, whereas girls in the identity regression class seemed to decrease in resilience over time. In boys, all classes differed regarding level of resilience at baseline. Regarding slopes, only the identity regression class significantly differed from other classes with regard to the rate of change in resilience, as boys in this class seemed to decrease more in resilience over time as compared to boys in other classes.

Third, for symptoms of depression, the unconstrained model had an excellent fit in girls [S-B$\chi^2(4) = 4.504$, $p = 0.342$; CFI = 0.999;

TABLE 5 Mean intercepts (I) and slopes (S) for the four-class solution for the total group, girls, and boys.

| | Total group | | Girls | | Boys | |
|---|---|---|---|---|---|---|
| | I | S | I | S | I | S |
| **Class 1: Adaptive identity** | | | | | | |
| Consolidated identity | 5.08 | 0.06*** | 4.96 | 0.05** | 5.26 | 0.05* |
| Disturbed identity | 2.77 | −0.08*** | 2.86 | −0.06** | 2.62 | −0.09** |
| Lack of identity | 1.79 | 0.02 | 1.95 | 0.04 | 1.51 | 0.02 |
| **Class 2: Identity progression** | | | | | | |
| Consolidated identity | 3.96 | 0.40*** | 3.85 | 0.42*** | 4.38 | 0.17* |
| Disturbed identity | 3.89 | −0.41*** | 3.91 | −0.39*** | 3.57 | −0.26*** |
| Lack of identity | 4.79 | −1.23*** | 4.97 | −1.20*** | 3.67 | −0.59*** |
| **Class 3: Identity regression** | | | | | | |
| Consolidated identity | 4.87 | −0.50*** | 4.78 | −0.51*** | 4.96 | −0.46*** |
| Disturbed identity | 3.14 | 0.34*** | 3.16 | 0.36*** | 3.04 | 0.30*** |
| Lack of identity | 1.96 | 1.26*** | 2.02 | 1.34*** | 1.13 | 1.13*** |
| **Class 4: Diffused identity** | | | | | | |
| Consolidated identity | 3.84 | 0.02 | 3.83 | 0.01 | 3.59 | 0.15 |
| Disturbed identity | 3.93 | −0.05 | 3.94 | −0.06 | 4.10 | −0.01 |
| Lack of identity | 4.68 | 0.02 | 4.74 | 0.03 | 4.82 | 0.16 |

*$p < 0.05$. **$p < 0.001$. ***$p < 0.001$.

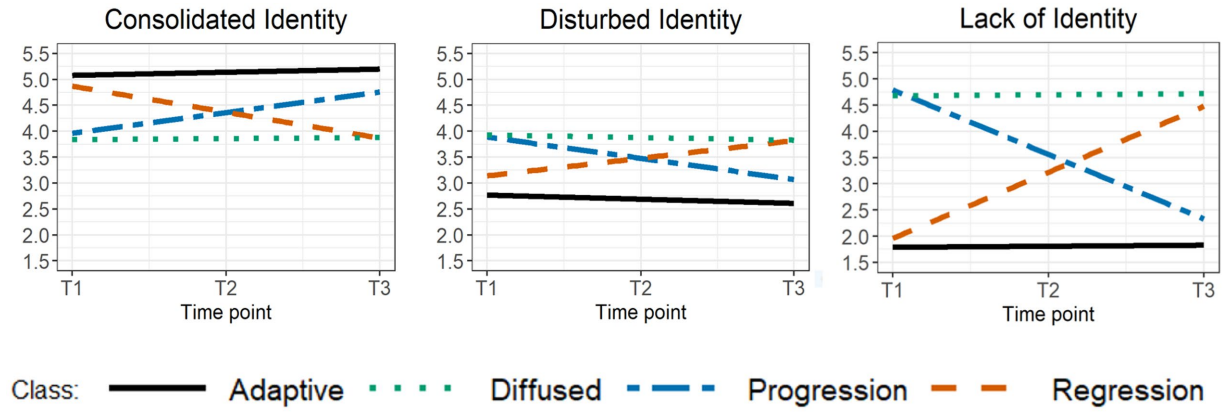


FIGURE 1
Mean intercepts and slopes for the identity dimensions in the four-class solution.

RMSEA = 0.021 with 90% CI [0.000–0.094]; SRMR = 0.017] and boys [S-B$\chi^2(4) = 2.820$, $p = 0.588$; CFI = 1.00; RMSEA = 0.000 with 90% CI [0.000–0.083]; SRMR = 0.013]. Constraining the intercepts was not allowed in girls [$\Delta$S-B$\chi^2(3) = 373.746$, $p < 0.001$] or boys [$\Delta$S-B$\chi^2(3) = 185.213$, $p < 0.001$]. Furthermore, constraining the slopes was not allowed in girls [$\Delta$S-B$\chi^2(3) = 206.574$, $p < 0.001$] or boys [$\Delta$S-B$\chi^2(3) = 104.017$, $p < 0.001$]. Once again, in girls, only adaptive identity and identity regression classes [$\Delta$S-B$\chi^2(1) = 2.70$, $p = 0.132$], and identity progression and diffused identity classes [$\Delta$S-B$\chi^2(1) = 0.435$, $p = 0.510$] did not differ regarding depressive symptoms at baseline. In boys, all classes differed regarding depressive symptoms at baseline. In girls and boys, all pairs of slopes differed from one another, except for the slopes of adaptive identity and diffused identity classes [girls: $\Delta$S-B$\chi^2(1) = 0.039$, $p = 0.843$; boys: $\Delta$S-B$\chi^2(1) = 1.474$, $p = 0.225$], in which adolescents showed, respectively, stable low and high levels of depressive symptoms over time.

Lastly, for BPD features, the unconstrained model had an excellent fit in girls [S-B$\chi^2(4) = 2.714$, $p = 0.607$; CFI = 1.00; RMSEA = 0.000 with 90% CI [0.000–0.084]; SRMR = 0.013] and boys [S-B$\chi^2(4) = 1.343$, $p = 0.854$; CFI = 1.00; RMSEA = 0.000 with 90% CI [0.000–0.065]; SRMR = 0.011]. Constraining the intercepts as equal across classes significantly worsened model fit in girls [$\Delta$S-B$\chi^2(3) = 365.511$, $p < 0.001$] and boys [$\Delta$S-B$\chi^2(3) = 201.719$, $p < 0.001$]. Constraining slopes as equal was also not allowed in girls [$\Delta$S-B$\chi^2(3) = 138.962$, $p < 0.001$] or boys [$\Delta$S-B$\chi^2(3) = 35.206$, $p < 0.001$]. In girls as well as in boys, only identity progression and diffused identity classes did not differ from one another regarding BPD features at baseline [girls: $\Delta$S-B$\chi^2(1) = 1.145$, $p = 0.285$;

TABLE 6 Baseline parameter estimates of multi-group Latent Growth Curve Modeling in girls and boys.

| | Trajectory classes of identity dimensions | | | |
|---|---|---|---|---|
| Parameters | Adaptive identity | Identity progression | Identity regression | Diffused identity |
| **Girls** | | | | |
| Self-esteem | | | | |
| $M_{intercept}$ | $2.95^{a}$ | $2.12^{b}$ | $2.84^{c}$ | $2.07^{b}$ |
| $M_{slope}$ | $-0.02^{a*}$ | $0.29^{b***}$ | $-0.36^{c***}$ | $0.00^{a}$ |
| Resilience | | | | |
| $M_{intercept}$ | $3.05^{a}$ | $2.25^{b}$ | $3.02^{a}$ | $2.38^{b}$ |
| $M_{slope}$ | $-0.02^{a}$ | $0.28^{b***}$ | $-0.34^{c***}$ | $-0.04^{a}$ |
| Symptoms of depression | | | | |
| $M_{intercept}$ | $1.71^{a}$ | $3.13^{b}$ | $1.80^{a}$ | $3.07^{b}$ |
| $M_{slope}$ | $0.05^{a***}$ | $-0.50^{b***}$ | $0.63^{c***}$ | $0.05^{a}$ |
| BPD features | | | | |
| $M_{intercept}$ | $1.42^{a}$ | $2.46^{b}$ | $1.58^{c}$ | $2.40^{b}$ |
| $M_{slope}$ | $0.04^{a**}$ | $-0.25^{b***}$ | $0.40^{c***}$ | $0.04^{a}$ |
| **Boys** | | | | |
| Self-esteem | | | | |
| $M_{intercept}$ | $3.20^{a}$ | $2.56^{b}$ | $3.03^{c}$ | $2.15^{d}$ |
| $M_{slope}$ | $0.02^{a*}$ | $0.16^{b***}$ | $-0.30^{c***}$ | $-0.08^{d}$ |
| Resilience | | | | |
| $M_{intercept}$ | $3.67^{a}$ | $3.07^{b}$ | $3.45^{c}$ | $2.68^{d}$ |
| $M_{slope}$ | $0.05^{a***}$ | $0.13^{a***}$ | $-0.29^{b***}$ | $0.01^{a}$ |
| Symptoms of depression | | | | |
| $M_{intercept}$ | $1.37^{a}$ | $2.25^{b}$ | $1.63^{c}$ | $2.77^{d}$ |
| $M_{slope}$ | $0.00^{a}$ | $-0.23^{b***}$ | $0.42^{c***}$ | $0.13^{a}$ |
| BPD features | | | | |
| $M_{intercept}$ | $1.06^{a}$ | $2.03^{b}$ | $1.42^{c}$ | $2.24^{b}$ |
| $M_{slope}$ | $0.00^{a}$ | $-0.11^{b**}$ | $0.30^{c***}$ | $0.06^{a}$ |

Trajectory classes with a different superscript significantly differ from one another.
*$p < .05$. **$p < .01$. ***$p < 0.001$.

boys: $\Delta S\text{-}B\chi^2(1) = 3.808$, $p = 0.051$]. In girls and boys, all pairs of slopes differed from one another, except for the slopes of adaptive identity and disturbed identity classes [girls: $\Delta S\text{-}B\chi^2(1) = 0.003$, $p = 0.953$; boys: $\Delta S\text{-}B\chi^2(1) = 1.013$, $p = 0.314$]. Figure 2 displays all parameter estimates of the multi-group LGCM of self-esteem, resilience, symptoms of depression, and BPD features in girls, since results for girls and boys largely matched. As only 75% of the sample completed the BPFS-C, we repeated GMM for this subgroup and for girls and boys separately, as they appeared to be unequally distributed across classes [$\chi^2(3) = 75.427$, $p < 0.001$]. In the total subgroup and in the subgroups of girls and boys, the four-class solution was favored and included adaptive identity, identity progression, identity regression, and diffused identity classes (see Supplementary Table 1).

## 4. Discussion

The present study examined developmental trajectories and trajectory classes of adaptive and disturbed identity dimensions in adolescence, and examined how these trajectory classes were associated with baseline levels of and changes in self-esteem, resilience, symptoms of depression, and BPD features using three-wave longitudinal data from 2,123 adolescents aged 12 to 18 at T1.

With regard to the first study aim, LGCM pointed to no significant linear change in consolidated identity over a period of 2 years. The observed mean scores across the three measurement points indicated no significant changes in consolidated identity over time ($M_{T1} = 4.824$; $M_{T2} = 4.805$; $M_{T3} = 4.868$). Consistent with findings of Schwartz et al. (9) and Bogaerts et al. (65), this finding seems to suggest that adolescents' sense of identity consolidation remains relatively stable over time. However, our finding differs from studies showing increases and/or decreases in identity synthesis from early to late adolescence (8, 10, 30). The difference in results could be ascribed to the three-wave longitudinal design of our study, which only allowed us to investigate linear change across three measurement points instead of age. For the present study, we considered developmental changes in consolidated identity in a large sample of 12 to 18-year-old adolescents without taking into account potential differences in identity formation

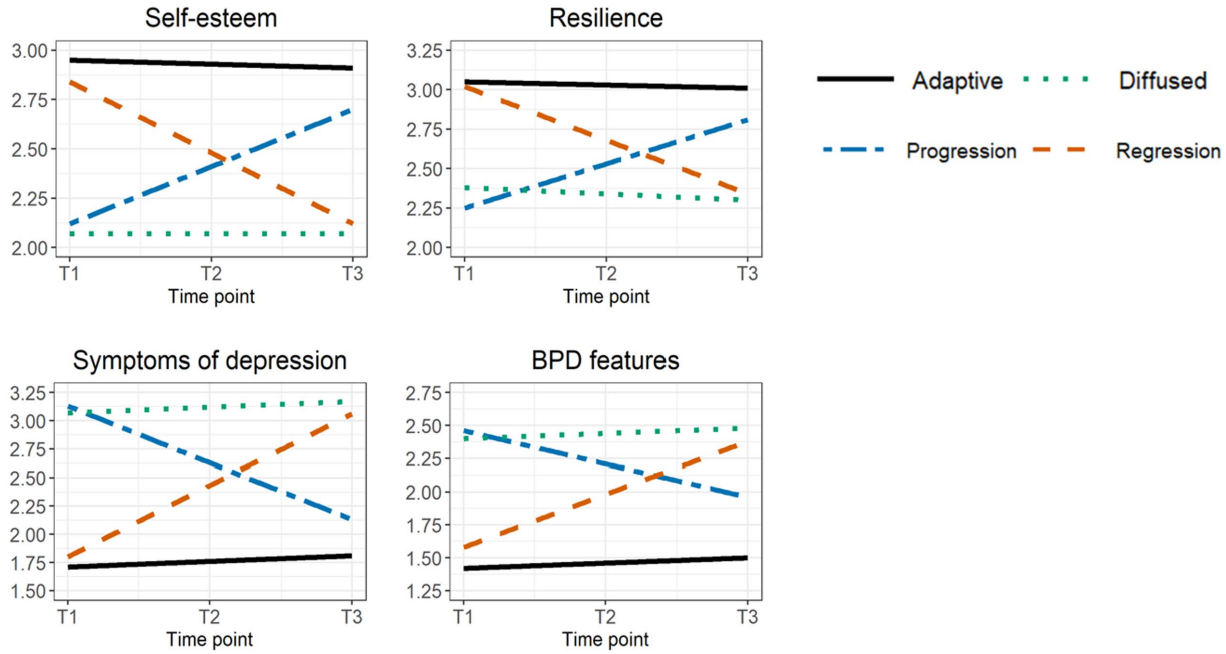


FIGURE 2
Parameter estimates of self-esteem, resilience, symptoms of depression, and BPD features for the four-class solution in girls.

during early, mid-, and late adolescence. For instance, Hatano et al. (66) demonstrated that young individuals' sense of identity synthesis linearly decreased in early adolescence, whereas it linearly increased in mid- and late adolescence.

Furthermore, LGCM indicated a linear decrease in disturbed identity over a period of 2 years, which seems to suggest that identity-related problems such as sustained confusion about one's identity and the tendency to mimic the values, beliefs, and goals of others in an attempt to acquire a sense of inner coherence decrease throughout adolescence (24, 43, 67). Our finding maps well onto previous research showing that youngsters tend to increasingly commit to and identify with their identity-related choices, whereas they engage less in reconsidering their choices and ruminating about them (68–70). Nonetheless, in contrast with our finding, recent studies have also pointed to increases in identity confusion and identity distress from early to late adolescence (8, 30). Authors have framed these findings within the notion of emerging adulthood, arguing that, for adolescents living in industrialized societies, settling into long-term adult roles is now delayed and has given way to an extended period of identity exploration, which may trigger identity confusion (71). The inconsistency in findings may be ascribed to variations in the operationalization of identity problems. Previous studies have used the EPSI (7, 40), in which identity confusion represents a sense of purposelessness, being without direction, and feeling unable to commit to and/or maintain commitments to life alternatives. Differently, the present study used the SCIM (24), in which disturbed identity represents both a sense of incoherence and instability as well as a strong dependence on others for providing a sense of coherence and guiding future behavior and decision-making. Thus, whereas the EPSI almost exclusively assesses individuals' sense of personal identity, the SCIM assesses elements of both personal and social identity (i.e., the self in social situations). Previous research has demonstrated that social identity effects appear to be strongest in early adolescence as these young individuals are largely preoccupied with establishing a sense of belongingness and affiliation, and decrease throughout mid- and late adolescence (72, 73).

Finally, and rather unexpectedly at first, LGCM indicated a linear increase in lack of identity, a less common and pathological variant of identity dysfunctioning, which comes with feelings of inner emptiness and fragmentation. Although these feelings have been mainly considered within individuals with BPD or psychotic disorders (74–76), recent work shows that a lack of identity and feelings of inner emptiness are also experienced by individuals without mental health diagnoses (77, 78). A study among college students found that almost one in five students experience emptiness (79), and a recent study by Martin and Levy (80) indicated that feelings of emptiness were consistently endorsed by 10% of 22,217 US college students and significantly increased in women. As our study shows that experiencing a sense of inner emptiness and lack of identity is relatively common in adolescence and may even increase over time, research on the (pathological) nature of these feelings and how they diverge from other, highly researched identity problems (e.g., identity confusion and distress, and ruminative identity exploration) is recommended.

In addition to these developmental trends in the total group, multi-group LGCM indicated that girls and boys significantly differed regarding their levels of identity dimensions at baseline, although they showed similar rates of change in identity dimensions over time. Specifically, girls reported lower levels of consolidated identity as well as higher levels of disturbed identity and lack of identity at baseline as compared to boys. These findings align well with previous research showing less desirable identity functioning for adolescent girls than for adolescent boys (30, 65, 81).

With regard to the second study aim, GMM in the total group as well as in girls and boys revealed four trajectory classes of identity formation based on three dimensions capturing both adaptive and disturbed aspects of identity formation. First, the *adaptive identity class* (± 70%) presented with a high baseline and increasing level of consolidated identity, and low to moderate baseline and decreasing levels of disturbed identity and lack of identity. Hence, this class seems to represent a state of identity consolidation or identity synthesis, previously described by Erikson (2) as the hallmark of identity development and consistently found in previous research (31, 82, 83). In addition, these results emphasize the importance of attending to both relatively common identity problems (as captured by the disturbed identity scale) and more severe identity problems (as captured by the lack of identity scale) as adolescents in this class showed different baseline levels of and changes in disturbed identity and lack of identity. Specifically, they reported a low to moderate baseline and significantly decreasing level of disturbed identity, but a stable low level of lack of identity. Second, the *diffused identity class* (± 12%) showed stable moderate levels of consolidated identity and disturbed identity, and a stable high level of lack of identity over time. This class seems to represent a state of identity diffusion, an identity profile in which adolescents struggle with enduring feelings of emptiness and incoherence, which they attempt to compensate by anchoring their sense of identity in others. Although previous studies have described less desirable identity profiles in adolescence such as those characterized by high levels of identity confusion or rumination about identity alternatives [e.g., (8, 82, 83)], this study is among the first to demonstrate the occurrence of an identity profile characterized by more severe identity issues. Feelings of inner emptiness and fragmentation are hypothesized to go beyond developmentally-appropriate or more typical identity problems (24) and have been associated with a host of psychological disorders (16, 24, 84).

Third, the *identity progression class* (± 8%) was characterized by a moderate baseline and increasing level of consolidated identity, and moderate to high baseline and decreasing levels of disturbed identity and lack of identity. Fourth, the *identity regression class* (± 10%) demonstrated a high baseline and decreasing level of consolidated identity as well as low to moderate baseline and increasing levels of disturbed identity and lack of identity. Similarly, Schwartz et al. (9) found classes in which adolescents decreased or increased in identity confusion over time. Furthermore, identity status research in adolescents has pointed to regressive, but particularly progressive shifts in identity development (see 11–13). In line with our results, a recent study by de Moor et al. (15) distinguished between stable, progressive, and regressive identity classes, illustrating, respectively, no, positive, or negative identity cluster change over time. Our hypothesis was thus partially confirmed, as we identified adaptive and diffused identity classes (8), and also uncovered two developmental profiles of identity progression and regression. Furthermore, in line with previous research (38, 85), girls and boys were unequally distributed across trajectory classes. Girls were underrepresented in the adaptive identity class as well as overrepresented in the other classes. More so, GMM performed separately for girls and boys indicated that 63% and 16% of girls, and 76% and 4% of boys belonged to, respectively, adaptive identity and diffused identity classes.

With regard to the third study aim, multi-group LGCM results indicated that the identified trajectory classes manifested different baseline levels of and changes in self-esteem, resilience, symptoms of depression, and BPD features over time. In accordance with our hypotheses, theory, and previous research (3, 16, 27, 37, 82), adolescents in the adaptive identity class reported high levels of self-esteem and resilience, and low levels of depressive symptoms and BPD features. In contrast, adolescents in the diffused identity class reported low levels of self-esteem and resilience, and high levels of depressive symptoms and BPD features over time. Similarly, a study by Campbell et al. (86) among adolescents from community and clinical settings demonstrated that youth reporting the highest levels of identity confusion, identity disturbance, and feelings of emptiness were nearly twice as likely to report BPD features. Further along these lines, a study by Hatano et al. (66) showed that adolescents in high identity synthesis trajectories demonstrated significantly more life satisfaction than adolescents in high identity confusion trajectories.

Furthermore, adolescents in the identity progression class reported low baseline levels of self-esteem and resilience, and high baseline levels of symptoms of depression and BPD (with levels similar to those of the diffused identity class), but tended to improve in psychological functioning over time. Opposite findings were obtained for adolescents in the identity regression class, who indicated high baseline levels of self-esteem and resilience, and low baseline levels of symptoms of depression and BPD (with levels similar to those of the adaptive identity class), but tended to worsen in psychological functioning over time. Although focusing on another indicator of psychosocial functioning (i.e., family functioning), Schwartz et al. (9) yielded similar findings. Specifically, adolescents who decreased in identity confusion (i.e., identity progression) tended to show the greatest improvements in psychosocial functioning, whereas adolescents who increased in identity confusion (i.e., identity regression) tended to show a worsening in psychosocial functioning over time. Although our study design does not allow to make developmental inferences, these findings seem to support leading theories by indicating that improvements in identity functioning may lay the foundation for psychological well-being, whereas setbacks in identity functioning may enlarge the risk of psychopathology (2, 26, 43). Differently, de Moor et al. (15) did not find clear significant differences in substance abuse among stable, progressive, and regressive identity classes in adolescence.

In summary, the present study seems to confirm that having or developing towards a consolidated sense of identity represents an important source for positive psychological functioning. Specifically, (regaining) healthy identity functioning seems to coexist with stable high or increasing levels of self-esteem and resilience, and stable low or decreasing levels of symptoms of depression and BPD. In contrast, suffering from stable or increasing levels of disturbed identity and/or lack of identity seems to coexist with stable low or diminishing positive psychological functioning, as well as stable high or increasing levels of psychopathology.

Results from the present study should be interpreted in light of some limitations. First, we used self-report measures to assess all variables. Although self-report data are assumed to provide a relatively true picture of identity functioning, the exclusive use of quantitative self-report data might have led to inflated correlations among variables and reporting biases (87). In future research, we could consider adopting a multi-method (e.g., both quantitative and narrative data on identity) and/or multi-informant study design

to increase the reliability of our findings. Second, despite its three-wave longitudinal design, the present study considered a relatively short time span of 2 years and focused exclusively on adolescents. Future studies might include more measurement points to adopt an accelerated or cohort-sequential study design in which both linear and *non-linear* trends in identity development can be charted throughout adolescence and in which differences in identity development across early, mid-, and late adolescence can be taken into account. Moreover, future studies might also attend to identity development and psychological functioning in emerging and young adults, as important changes in identity formation still occur during this transitional life stage (8, 71, 88). Third, although research has mainly studied identity development over large time intervals (e.g., 6 months or 1 year), emerging research evidences daily dynamics in identity formation (66, 89, 90), which should encourage researchers to investigate day-to-day trends in identity development and how they may feed into daily psychosocial functioning. Fourth, our findings are dependent upon our use of the SCIM. While this instrument advances our understanding of both adaptive and disturbed dimensions of identity development, the dimensions of the SCIM differ from those considered in previous research (e.g., identity processes specific to the U-MICS or the Dimensions of Identity Developmental Scale, and identity synthesis and confusion dimensions; 7, 41, 91) as the SCIM assesses aspects of personal *and* social identity functioning. Although insightful, it is difficult to compare our results with those of previous research. Yet, our findings could encourage researchers to study the interplay of personal and social identity formation, since their development may be largely enmeshed. For instance, research has indicated that, throughout adolescence, social identifications (e.g., with classmates) seem to be a source for subsequent personal identity formation (92). Finally, the findings obtained in our study apply to Western (specifically, Flemish) adolescents and cannot be generalized to other non-Caucasian or more diverse samples. Future research could investigate our research questions among adolescents of both Western and non-Western cultures to advance our understanding of cross-cultural variations in identity development and links with psychological functioning. As the development of an integrated and autonomous sense of identity may be more valued in individualistic countries (such as Belgium) than in collectivistic countries (such as Japan), identity development and its associations with psychological well-being may vary (93, 94).

Notwithstanding these limitations, the present results emphasize the importance of both adaptive and disturbed identity dimensions in adolescence. Our findings indicate that adolescents who struggle with emerging or lasting identity disturbance and/or lack of identity have an increased risk of experiencing increasing or enduring mental health problems such as low levels of self-esteem and resilience, and high levels of depressive symptoms and BPD features. Alternatively, adolescents who experience a stable or increasing sense of identity consolidation seem to profit from stable high or increasing levels of psychological well-being as well as stable low and decreasing levels of psychological dysfunctioning. Altogether, our results underscore the importance of supporting healthy identity development and treating identity dysfunctioning to promote mental health in adolescence.

Although having identity issues must not be considered a clinical problem in young individuals, their distressing consequences should not be minimalized or trivialized. Rather, adolescents' identity development should be fostered by parents, teachers, and (if necessary) psychologists. In a first step, caregiving figures can support adolescents in coping with their transforming identity by normalizing feelings of identity confusion, without dismissing them, and by underscoring their adaptive function as they essentially stimulate youngsters to explore new life paths and strive for personal identity (2, 95). In addition, parents can potentially mitigate (or even prevent) identity issues in their children by providing them with a safe and (autonomy) supportive environment (96). Finally, should adolescents be challenged with persistent identity formation problems and be at risk of developing psychopathology, they should be able to receive psychotherapy that includes identity-specific modules prioritizing the treatment of problems related to self and identity. Effective evidence-based interventions for treating both symptom and personality disorders, consisting of (among others) Mentalization-Based Treatment (MBT; 97), Dialectical Behavior Therapy (DBT; 98), and Transference-Focused Psychotherapy (TFP; 99), have been adapted for use in adolescents. All of these interventions assume that psychopathology results in part from a poorly developed, unstable, or negative sense of self and others, and may thus be effective in bolstering identity development in adolescence.

## 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 present study was approved by the ethical committee (SMEC) of the Faculty of Psychology and Educational Sciences of KU Leuven. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

## Author contributions

AB, LC, and KL contributed to the design of the study. AB wrote the first draft of the manuscript. AB and KR analyzed the data. AB and TBu collected the data. All authors contributed to the article and approved the submitted version.

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## 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.

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## Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2023.1125812/full#supplementary-material

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# The cultural change narrative as a core component of therapeutic change

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**Introduction:** Research indicates a similar effect of Mentalization-based treatment (MBT) and Dialectical behavior therapy (DBT) for borderline personality disorder (BPD). However, there is a paucity in studies investigating the change narrative received from and developed in these treatments. The aim of the present study is to investigate similarities and differences in the change narratives provided by MBT and DBT, and how these narratives reflect the rationale, explanations, and procedures of the provided treatment.

**Methods:** The study is a qualitative analysis of seven interviews conducted by the authors. Three of the participants had received MBT, and four of the participants had received DBT. This study presents an Interpretative Phenomenological Analysis (IPA) of the change narratives received in two specialized treatments for BPD.

**Results:** The main findings from the IPA were that the change narratives described by the participants reflected the treatment they received. The DBT participants highlighted explicit learning of tools and techniques, with predictable and safe therapists. In contrast, the MBT participants emphasized a long-lasting process of exploring to create procedural learning with therapists who followed their lead.

**Discussion:** The participants' stories of change shed light on how a change narrative was developed, and therefore how the rationale, explanations and procedures were conveyed differently by MBT and DBT.

KEYWORDS

**therapeutic change, change narrative, personality disorder, qualitative analysis, Mentalization-based treatment, Dialectical behavior therapy, Interpretative Phenomenological Analysis**

## Introduction

"Everybody has won, and all must have prizes" was the Dodo bird's verdict in Lewis Carroll's *Alice's Adventures in Wonderland* (1). The Dodo bird verdict in psychotherapy research refers to the observation that a wide range of schools of psychotherapy seem to be equally effective (2). This has later been largely revisited (3–5). One way of understanding the lack of differences is that all psychological treatments have some shared healing ingredients [(6), p. 39]. The working alliance and the therapist factor are common factors that have been widely studied (7–14). While the therapeutic alliance is the most robust predictor of psychotherapeutic healing, explaining around 7.5% of the variance in outcomes (8), and no statistical differences can be seen between *bona fide* treatments, research suggests that the common factors unfold differently in different treatments (15–19). Research suggests that patients who have received cognitive behavioral therapy and psychodynamic therapy will have qualitatively different descriptions of these experiences (20). MBT and DBT are two specialized treatments for borderline personality

disorder. DBT has roots in the cognitive tradition (21), while MBT is a psychodynamic inspired treatment (22). They have several similarities, such as the length of treatment, the combination of individual therapy and groups, and they produce similar results on outcome measures (23–27). However, the specific ingredients which constitute the treatments will inevitably provide patients who receive MBT or DBT with different experiences of change.

In *Persuasion and Healing* (1993), Frank and Frank proposed four effective features shared by most healing rituals across cultures and across time. One of these was "a rationale, conceptual scheme, or myth, that provides a plausible explanation for the patient's symptoms and prescribes a ritual or procedure for resolving them" [(6), p. 42]. This common factor could shed light on how elements found in every psychotherapeutic treatment, put in context of their specific ingredients, provide patients with different experiences of change. In Western societies psychotherapy could be understood as an acknowledged healing ritual for psychological suffering, trusted and believed in the culture (6). Furthermore, cultural recognition of the healing rituals provides the necessary social legitimacy to the therapeutic rituals or procedures, and to the rationale provided in the therapeutic setting (28). Each therapeutic method will also provide their own specific culture which will be transmitted to the patient. This may happen through the specific language used to conceptualize the healing myth, and the specific explanations for the patient's problems, as well as through the unique rituals put forth as necessary for resolving them.

Laska et al. (29) have proposed a common factor (CF) approach that seems to be strongly inspired by Frank and Frank (6). This approach includes an entrusting therapeutic setting, a provided rationale accepted by the patient, a culturally embedded explanation for the disorder, which is being treated, an emotional bond in the therapeutic relationship, and therapeutic procedures. Wampold and Imel (30) proposed that if therapists can provide a believable rationale that is accepted, expectations connected to the positive effects of the treatment may arise. Frank and Frank (6) tied the provision of a rationale to the therapist's ability to combat demoralization and inspire hope in the patient. Several decades of psychotherapy research have suggested that the patient's belief in the treatment, in addition to motivation and expectations, is associated with positive outcomes (6, 30–33). Furthermore, the importance of expectations and hope could be illuminated by studies on the placebo effect (6, 33–36).

BPD is defined by DSM-V as "a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity, beginning by early adulthood and present in a variety of contexts" (37). BPD is a severe psychiatric disorder, traditionally seen as difficult to treat, and is characterized by pathology that affects the patient, relatives, and the society (38, 39). Twin studies have shown that a genetic predisposition to emotional dysregulation combined with a non-supporting environment can lead to the development of BPD (40–42). The point prevalence of personality disorders in general is estimated to be around 10%, and for BPD specifically 1.5% (43, 44). Patients with BPD share some core characteristics. Some of these are suicidal thoughts and attempts, and self-harm. Studies have reported a 8–10% suicide rate among BPD patients, and a lifetime prevalence of 3–4 attempts (45–48). While pharmacological interventions on BPD show no more than moderate effect, over half a dozen manualized treatment methods have been empirically validated for treatment of the disorder (25, 49). However, the evidence indicates that some specific therapies are superior to usual care (27, 50). DBT and MBT are the two most commonly used treatments for BPD in Norway (39).

MBT is a manualized treatment developed by Anthony Bateman and Peter Fonagy shown to be efficient for BPD (51–56). The environment in which attachment relationships are formed is crucial for the development of mentalization, and Fonagy and Bateman (57) have postulated that an interaction between disturbances in early development of attachment, and a person's neurological development are central to the development of BPD. The ability to mentalize can be weakened by insecurities in these attachment relationships (57). Poor mentalization is related to reduced social functioning, low quality relationships and psychopathology in general (58). Bateman and Fonagy (22) have described that the goal of MBT is to restore the ability of mentalization when it is lost, maintain it when it is present, and keep it going when it elsewhere would be lost. A mentalizing modus of organizing subjective experiences is in contrast to pre-mentalizing modi, such as pretend mode and psychic equivalence (39). The proposed mechanism of change is an "exclusive focus on the BPD patients' current mental state while activating the attachment relationship" [(59), p. 21]. MBT assumes that working with trust in the therapeutic relationship is central to healing (39, 60, 61). Furthermore, epistemic trust is at the core of MBT's recent placement of social learning at the center in understanding mentalizing (59, 62, 63). Epistemic trust can be defined as a person's ability to evaluate information from the social world and consider its accuracy and reliability in terms of personal relevance. If so, information is allowed to be incorporated into one's existing knowledge (64).

Dialectical behavior therapy (DBT) is another manualized treatment for BPD developed by Marsha Linehan. DBT is highly structured and consists of four components: (i) Individual therapy; (ii) Group skills training; (iii) Between session telephone coaching; (iv) A therapist consultation team (65, 66). DBT's dialectical philosophy emphasizes a synthesis between strategies that promote change and acceptance (21, 66). Important treatment targets are emotional, interpersonal, and behavioral dysregulation, and harmful behavior such as self-harm and suicidal acts (66, 67). DBT's biosocial theory of BPD suggests that emotional dysregulation, originating from emotional vulnerability, and emotion regulation deficits are core themes of BPD (21).

It has been suggested that individuals with BPD have a stronger activation in response systems for emotions, which can be a consequence of a biological vulnerability as well as events in early childhood. Childhood events like neglect or traumas can lead to changes in the development of neural structures important for emotion regulation (68). As a result of this, it is thought that BPD patients have an emotional system that reacts stronger and faster to cues from the environment than others, which makes them more prone to behavioral and cognitive dysregulation (68). In DBT acquisition, strengthening and generalization of abilities that make the patients more resilient facing emotional dysregulation, stress and difficult relationships are core focus areas (21, 67). Central change mechanisms in DBT are motivating the patients to recognize and accept their affective states, and at the same time encourage them to apply different tools and skills to downregulate intense emotions and handle stressful situations constructively (66, 67). Studies indicate that

DBT is an effective treatment of BPD as well as suicidality and self-injurious behavior (65, 67, 69–80).

Both MBT and DBT are therapeutic methods that have been widely studied, both quantitatively and qualitatively. Several of the helpful elements in each method have been identified. However, the way in which the culturally transmitted elements in treatment affect a patient's story of change has, to our knowledge, been less investigated. In this study, we propose that these elements in sum provide the patient with a cultural change narrative that must be phenomenologically investigated to be understood. As Wilber stated in 2000, "exterior surfaces can be seen, but interior depth must be interpreted" [(81), p. 184]. It seems reasonable to question whether the relational co-creation of an accepted cultural change narrative—including its inherent world view and implied isometrics of interpersonal interacting—may foster qualitative changes currently neglected (despite this common factor theorized at core of psychotherapy).

The aim of the study was to openly investigate how patients who have received MBT or DBT experienced change in the treatments they received. When we looked closer at what the participants spoke about in the interviews, we became more and more interested in the systematically different change narratives they received from MBT and DBT, respectively. Furthermore, we wished to investigate how the similarities and differences in change narratives could be understood in light of the treatments' rationales, explanations, and procedures.

# Materials and methods

## Method

Interpretative Phenomenological Analysis (IPA) has been used as the fundamental method throughout the study. IPA is a qualitative method particularly suitable when seeking to understand an individual's experience of their own lived experiences, and the meaning they relate to those experiences (82). The development and framework of IPA is informed by concepts and debates from multiple philosophical traditions which attend to the philosophy of knowledge – phenomenology, hermeneutics, and an idiographic approach (82).

Both the phenomenological and the hermeneutic perspective is essential in IPA, as well as insights from the combination of these two. IPA is phenomenological because it is concerned with exploring a person's experience in its own terms. Using IPA, the researcher strives to make sense of what the participant is trying to make sense of, namely what has happened, or is happening, to them (83). Hermeneutics' position in IPA is particularly the idea of double hermeneutics; meaning the participant is trying to make sense of their own experience, and the researcher is trying to make sense of the material the participant puts forward in an interview (82). Hence, the use of double hermeneutics is central for understanding the dynamic process between the material, the researcher, and the participant.

The Norwegian Regional Committees for Medical and Health Research Ethics (reference number: 280677) and National Center for Research Data (reference number: 424892) have approved the study. The participants received written and oral information from the authors about the project and its purposes. All participants signed a letter of consent before the interviews were conducted.

## Participants

The sample consisted of seven participants. Four participants had received DBT and three had received MBT. Six of the participants were female, and one of them male. The participants' age ranged from the mid-twenties to the mid-forties. According to themselves, all the participants met the inclusion criteria for the project. Inclusion criteria included that they at some point had met the criteria for F60.3 Emotional unstable personality disorder according to ICD-10, they had gone to either DBT or MBT, they ended their course of treatment at least 3 years ago and that they felt they could speak freely of their experience of receiving MBT or DBT. Two of the MBT participants received the regular MBT program, with 3 years in MBT-G and MBT-I, while one of them received a 16 weeklong MBT group, as well as receiving individual therapy. All the DBT participants received the regular DBT program.

## Procedure

Five of the participants were recruited through two different Facebook groups where the invitation letter was posted, and two were recruited by a communications advisor at National Advisory Unit on Personality Psychiatry. Potential participants then contacted one of the authors by e-mail or SMS. This enabled the authors to contact the potential participants by telephone, and further information about the project was given. After the telephone contact, the participants were sent a digital letter of consent they could sign by using an electronic identification system. Five of the interviews were conducted via Zoom, and two were conducted in the premises of the Psychology department of University of Oslo.

The semi-structured interview guide was developed to suit a qualitative in-depth interview. The questions were categorized as *before therapy*, *during therapy,* and *after therapy*. The interview guide was later modified to better suit the IPA framework as it is presented by Smith et al. (82). For instance, to reduce the number of questions in the interview guide, some of the questions were changed to probes that could be used if the main questions were perceived as too broad by the participant. The focus of the interviews was the participants' lived experience of therapy, in accordance with IPA. To achieve this format of the interviews, the preparations for the interviews were loosely inspired by the Life-mode Interview developed by Haavind (84) as we tried to capture concrete experiences in the participants' everyday lives. The interviews were conducted during a period of 3 weeks in November 2021.

## Data analysis

The data-analysis consisted of several steps, in line with Smith et al. (82). The first step was reading the interviews several times and listening to the recordings. Attention was particularly paid to the interviews conducted by the other author. The second step consisted of writing summaries for each interview, including repeating ideas, important preliminary codes, as well as the shape and flow of the interviews. The interviewers first discussed these impressions with each other, then later discussed them with two senior researchers (third and fourth author). This process was inspired by the ideas of phenomenology and

hermeneutics in the sense that we strived to get close to the participant's experiences, by reading, rereading, listening, and discussing impressions, but at the same time unavoidably interpreting the participants' stories in accordance with pre-existing knowledge.

The third step consisted of identifying emerging themes and categories from the material. The selected quotes from the interviews were coded descriptively to emphasize what the participants spoke about in the interviews. At the completion of initial coding, we discussed which emergent themes could be found both within and across the interviews. The analysis across was made between each of the MBT interviews, each of the DBT interviews, and between the MBT and the DBT interviews. This step was strongly inspired by the hermeneutic circle, where the material was pulled apart and put together several times.

The fourth step of the analysis consisted of searching for connections in the material by making sense of the codes and placing them into a hierarchy. As a part of step five, moving to the next case, this process was applied to each interview. Step six consisted of looking for patterns across the cases. The descriptive codes for each interview were clustered into sub-themes, which then were abstracted to themes, and this led us to the meta-themes. Subsequently, the meta-themes, themes, and sub-themes of the DBT interviews and the MBT interviews were made into two separate hierarchies. All the meta-themes in both hierarchies were divided into two topics: Before MBT or DBT and during/after MBT or DBT.

The third and fourth authors were consulted throughout the analysis process to secure validity to our findings. Furthermore, the names of meta-themes, themes and sub-themes were discussed, and some were re- labeled, merged, and moved in a process of trying to make the hierarchies as close to experience as possible. Quotations from the interviews were then selected to illustrate the final themes and sub-themes. The hierarchies are presented in Appendix A, and the quotes selected are presented in the results section below. The Table 1 aims to illustrate the process from quote to meta-theme.

# Results

The data analysis resulted in eight meta-themes distributed on two topics – before treatment and during/after treatment. Four meta-themes organize the analysis of the MBT interviews, and four meta-themes organize the DBT interviews. The meta-themes hierarchically organize associated themes, which in turn organize the sub-themes. The themes and sub-themes are not discussed separately. However, the whole hierarchy of the analysis can be found in Appendix A. The participants are given fictional names when examples and quotes are used. In the following, hierarchy will be presented with selected quotes. Some of the sub-themes will inevitably represent some participants more than they represent others.

## First topic: before treatment

### First meta-theme DBT: I lacked an understanding of myself, and coped with my struggles destructively

This meta-theme seeks to capture the extent in which the participants felt they were not connected to, or in control of, their inner states, and how they handled these experiences. All four participants described strong emotional intensity and instability, as well as overwhelming emotions. For example, Anna explained: "*It was the experience of being overwhelmed, that came with the emotional instability, when I was tired, shameful, or felt insulted.*" They also talked about emotional chaos and incomprehensive feelings.

As a result of an overwhelming emotional chaos, some of the participants described a desire to change the way they felt, and how they could not do it before treatment. Eva explained, "*I could not get myself up or change my mindset. To get up and out of bed. Life just felt hopeless and over.*" This inability to change her way of thinking made her feel like she could not control what happened to her. Similarly, Anna talked about the lack of control, "*It was very unstable, and I did not know how to make it stop*." This may imply a belief that with the proper knowledge, feelings can be controlled and changed. Furthermore, it may suggest that Anna learned some tools in DBT that enabled her to control her emotions to a greater extent. All the participants described self-harm as a way of handling these painful emotions that felt out of control. Self-harm became a way of changing focus and relocating their pain as well as a relief of internal pressure. Lisa talked about when and why she would harm herself, "*It was under strong frustration or despair. And it was because [the frustration or despair] got an outlet somewhere. The pain moved from one place to another.*" All four of the participants had a clear picture of how self-harming felt like and the function it had for them, and for all of them it seemed to be a way of gaining a sense of control which they lacked regarding their inner states. All the participants spoke relatively freely about their self-harming experiences.

### First meta-theme MBT: my life lacked coherence

This meta-theme seeks to capture the participants' descriptions of their lives before they received MBT, both in terms of symptomatology and coping mechanisms. They all described lives that lacked coherence in terms of the self, understanding of others, and their coping mechanisms. Daniel and Miriam described their everyday functioning as limited. Daniel said, *"A typical day consisted of either sleeping all day or going to the activity center. Very little was happening. Very navel-gazing, one can say,*" and Miriam said, "*Get the kids to kindergarten, go home, lay and stare at the wall.*" All three participants described a chaotic inner state, in one way or another. Miriam described how she withdrew due to her chaotic internal experiences, while Daniel described his life as a rollercoaster, meaning his life was

TABLE 1 Example of analysis.

| Quote | Preliminary code | Sub-theme | Theme | Meta-theme |
|---|---|---|---|---|
| *"Learning that it's not dangerous even though it hurts, it will pass. It helped me a lot when I learned that [the feeling] will always pass. And I had not thought of that before, I was so preoccupied with how painful it was"* | Learning that feelings eventually will pass | Learning about feelings | Learning new ways of understanding myself and others | Explicit learning of a provided approach specific to my struggles |

unpredictable and unstable. Amanda described how she managed to keep a façade, with an education and a job she was good at. However, her private life was troublesome. She said, "*I had enormous problems in my personal relationships. I have self- harmed since my early teens, but I hid it from everyone. The self-harm and how I actually was doing.*"

All the participants dealt with the lack of coherence in harmful ways. Miriam developed a severe eating disorder, which became a way of gaining control. Daniel struggled with suicidal ideation and often expressed a wish to die to others when he struggled. He also said, "*I understand now that such expressions ["I just want to go and hang myself"] can trigger reactions in others*," implying in treatment, he reached an understanding of how his actions could have a direct effect on other people. Daniel mentioned his struggles with self-harm by cutting, Amanda said she struggled with self-harm throughout therapy, and Miriam mentioned she had several suicide-attempts behind her. Neither went further into detail about the circumstances of the self-harm or suicidal behavior.

### Second meta-theme DBT: my struggles with seeing the situation from an outside perspective

The second meta-theme of DBT concerns how the participants were sensitive to what they believed other peoples' opinions of them were, and how this led to difficulties in close and less close relationships. Both Eva and Anna talked about how they felt ashamed of what they believed other people thought of their behavior. Eva described how shame led her to withdraw from others: "*If I woke up on a Wednesday, was tired and did not have the energy to go to work, then the shame was too bad for me to go back to work on Thursday.*" They all described how small things could make them feel like people did not like them or care for them, and how painful this could be.

The tendency to interpret other people's behavior toward them negatively was described by all four participants as a core difficulty. Eva said, "*I often misinterpreted other people. I could believe they were criticizing me when they were just… I do not know… trying to correct me […] I always thought they meant to hurt me, not that they were trying to help.*" This quote describes how easily Eva felt criticized and how her interpretations led to a belief that other people were trying to be unkind. Lisa, Anna, and Sara also described how they would interpret small things, such as a look or a glance, negatively, and how they quickly jumped to the conclusion that people did not like them.

### Second meta-theme MBT: how my problems with mentalization affected myself and others

This meta-theme of MBT seeks to capture how the participants' internal pain also affected their relationships. Both Amanda and Daniel had challenges with boundaries. For Amanda, it was also connected to her inability to tell others what she needed and meant. She said, "*It was often something that was bothering me about a person, but I could not tell them. Instead, it became a very forceful reaction, so it became almost impossible to sort it out. In the end, you end up burning all your relationships*." This may imply that Amanda's lack of understanding of own inner state made it difficult to know her own and others' boundaries. Daniel described aggression as one of the only ways to communicate his boundaries to others. He said, "*When something made me angry, I knew it wasn't necessarily rooted in reality, but it was aggression towards everything and everyone. The whole world, in fact*." Daniel also struggled with differentiation of affect, he only knew happy and angry. His lack of understanding of his own feelings and own reactions led to internal pain and great struggles in his relationships. The participants also talked about how they had little room internally for others. Misinterpretation was particularly common, and they connected this to their lack of understanding of themselves. Amanda said, "*When you do not know what is happening inside, it gets hard to interpret external signals, and it becomes a mess. And then there might be strong reactions to little stimuli. I misinterpreted*." Daniel connected his lack of mentalization to how he over-analyzed his environment. Miriam also talked about how she was afraid of what other people thought about her. That is, her fantasies about what an imagined other might have thought of her struggles if they knew. She said, "*That shame, the defeat you carry, you cannot tell others because people are going to laugh. You go around thinking, no one feels this way, and you must try … society expects you to be normal.*" This fear became less prominent during and after therapy, which may imply that an increased capability to mentalize not only affected her close relationships, but also how she interacted with her environment.

## Second topic: during and after treatment

### First meta-theme DBT: explicit learning of a provided approach specific to my struggles

The second topic is concerned with the participants' experience of change during and after therapy. One central aspect of change the participants spoke of was how they learned to look at a situation more objectively. They explained how they learned to take an outside perspective of a situation, rather than to rely on their own thoughts, feelings, and interpretations. This made them see that their interpretations of situations did not necessarily coincide with what was happening, and this provided new meaning to situations. In the interview Lisa described how DBT dramatically changed the way she viewed the world and her own contributions.

> Lisa: It was almost like a … paradigm shift. Because I felt like everything I thought and believed was pulled out from under me, and I was like oh, so that's how it is! And now I can see that everything I'm thinking, feeling, and reacting to has to do with me and my background. It's not objectively connected to what's going on out there in the world. So, the part of DBT that worked the best for me was that […] it changed my way of thinking about my own contribution, and to take responsibility for my own contributions. What I do, think, and say and stop blaming others. Just not interpreting stuff into other people and situations.

Like Lisa, both Anna and Eva explained how DBT taught them to pause and try to figure out what was really happening in a situation and understand what other people were actually saying. This became a way for the participants to work against and overcome their tendency to misinterpret.

In addition to new perspectives on situations, the participants highlighted the value of the knowledge they gained about different emotions in DBT. In the interview Eva talked about the valuable experience of learning how one feeling can conceal another, such as anger concealing vulnerability. This enabled her to better understand and put into words how she felt. They spoke of an increased capacity to connect feelings to situations, which made their own feelings more

understandable. Anna also emphasized the importance of knowing that feelings are not permanent. She said, "*Learning that it's not dangerous even though it hurts, it will pass. It helped me a lot when I learned that [the feeling] will always pass. And I had not thought of that before, I was so preoccupied with how painful it was*." Thus, explicit learning about feelings were central in the participants' stories of change.

Furthermore, both Anna and Eva highlighted how information and knowledge about why they struggled made them more accepting toward themselves. Eva explained some important aspects of DBT, "*Understanding why I react as I do. Not feeling crazy, thinking there's something wrong with you. And when there's a reason and cause, you can do something about it. […] That made a huge difference. There's hope not just hopelessness*."

In this quote, Eva spoke of how knowledge about feelings and reactions helped her create a sense of meaning, and that this normalized her experiences. Furthermore, she demonstrated an ability to balance her focus between acceptance of herself and a hope connected to the possibility of change.

In combination with learning new information and knowledge, all four of the participants talked about the importance of the specific tools and skills they learned in DBT which enabled them to cope with emotions. This made them believe that it was possible to feel better. In the interview Sara said, "*It takes a while before you see, okay, I'm able to tolerate these feelings, and then you are maybe able to tolerate them for one, two, three minutes, and then you take a walk and you are suddenly gone for two hours*." Similarly, Eva explained the tools she learned to use when she felt like harming herself, "*You postpone it a little. It's like an impulse, the feeling is strongest in the beginning. After a while it's easier to regulate when your head works a little. […] For me, counting something worked. It still does; it happens automatically*." In this quote Eva explained how she could change the way she felt by using concrete techniques to regulate herself when emotions were strong. Some of the participants also highlighted the importance of practicing and repeating tools so that it was possible to use them automatically when needed.

> Anna: I've practiced DBT every day since DBT. After a while it felt natural. You cannot just attend DBT skills training for a year and expect everything to be solved. Because the truth is, the difficulties you face when you have this diagnosis were probably created early in life, in most cases. They're rooted deep inside you, so it takes a lot of hard work and repetition. And the more you practice the easier it gets.

Furthermore, the participants described how they developed a greater sense of agency. Lisa, Eva, and Sara all talked about how DBT taught them to believe that they could affect situations themselves. Lisa said, "*I experienced that more was up to me. Before, I felt like a victim of my circumstances. In DBT I learned that it was a consequence of how I see stuff, and react, it's not necessarily related to what's happening*." In this quote Lisa explains how her experience of change in agency is closely linked to what she learned in DBT.

All the participants described how DBT was more helpful than previous treatments, and some also explained how it changed their lives. Eva and Anna talked about trying many different therapies and psychologists without much effect before DBT. In the interview Anna said, "*Before DBT everything was about therapy, hospitalizations, medication. Starting school, leaving, starting a job, quitting. […] I tried everything, and it wasn't until DBT I noticed things got markedly better. I cannot say it enough, it has changed so much*." In unison with Anna, Eva described how DBT helped her getting to know herself and how she acquired and learned to use concrete tools. She also spoke about how this format fitted her personality. One of Eva's most important goals in treatment was to stop self-harming, and specific skills she learned in DBT helped her do this. This was one of the reasons why she felt like DBT worked. Lisa said she wished she had been referred to DBT earlier. Similarly, Sara talked about how DBT spared her of suffering: "*I do not know where I would have been without DBT. Still a lot of chaos*." All four of the participants described how DBT seemed to represent an important turning point in their lives regarding their healing process.

As much as the participants emphasized the importance of learning tools, they differed in whether they found the specific ones helpful. Sara and Eva both described how they did not like mindfulness, because it only amplified the chaos of thoughts and feelings they had inside. In the interview Sara said, "*I think you should be more mindless […] it's not that I need to be more present, sometimes you just need to shut everything out*." In contrast to Eva and Sara, Anna described what mindfulness meant to her: "*Especially mindfulness has helped me a lot. […] Being able to take a pause, breathe for a second and try to see a situation for what it actually was*." Anna further explained how she began to use mindfulness daily after DBT as a way of connecting to her inner states.

## First meta-theme MBT: a long-lasting process of exploring to create procedural learning

The first meta-theme of the second topic for MBT seeks to understand the participants' experiences of making sense of their world during treatment, and how this continued after treatment ended. One aspect that seemed important for all the participants was the integration of relational experiences, from past to present. By reaching an understanding of relational experiences and their own suffering, they also gained a sense of self-acceptance regarding themselves and their reactions. Amanda was able to understand that her experiences with domestic violence in her childhood and in her relationship gave her a certain perspective of the world. Similarly, Daniel developed a greater understanding of his childhood's contribution to his functioning before MBT. Integration of past and present relational experiences thus seemed to have been a core focus during therapy and therefore became important aspects of the participants' experience of change.

The participants also emphasized the importance of enough time for change to happen. Amanda talked about how it took several years for the changes to sit. Daniel pointed out how therapy is not a quick fix, but a way of unlearning your old habits and establishing new ones. Daniel said, "*If you walk the same route over and over, it's easy. But if this route always leads you to a mountain wall, it's not very productive. So, you have to make your own route. It's really heavy, but when you walk that trail again and again, that one eventually also becomes easy*." This quote demonstrates how hard and long-lasting a recovery process can be. However, it also says something about Daniel's increased acceptance of his struggles, and his increased feeling of agency, because he realized he could do something about the status quo. He also said, *"It was not until the end I managed to reflect on how my anger affected others,"* which underlines the importance of time in

the process leading up to such reflections. Even though Miriam received a shortened version of the MBT program, she also stressed the importance of time. This was particularly related to how establishment of trust and safety in the group can take time, and how recovery from BPD symptoms needs time.

Through the lengthy process described above, the participants spoke about how a greater understanding of their own feelings through an increased capability to mentalize were crucial elements in their healing. With increased mentalization came greater stability and understanding of self and others. Daniel talked about how therapy helped him deal with his pain, and how increased awareness of his struggles and feelings led to him gaining more stability in his daily life. He said, "*I connected with other feelings than anger, and to a certain degree I managed to be with the pain and my struggles. And I was assured that it was not dangerous to have such feelings*." In the description of Daniel's life before therapy, he talked about a life on a rollercoaster. About his life at present, he continued: "*I have my ups and downs, but my life is more stable, I've landed in myself. Most of the time I know my triggers, and my life is generally more stable.*"

Amanda talked about how a wider perspective of herself and others helped her recover. She emphasized how she slowly managed to widen her perspective in different situations. She said, "*Pausing between situations and the reaction. Thinking, what is happening, what am I feeling, what is she feeling, what did she mean. That process was non- existent before therapy. [My therapist and I] did not talk about it, but I believe that is the effect of mentalization*." Amanda also described a troublesome relationship with one of the group therapists, however, she eventually realized that this person reminded her of someone else. Amanda said, "*It was helpful, understanding that my struggles with her had more to do with me than her. It was a good experience*." This implied that Amanda gained a greater perspective of her own contributions to relationships with others, which she in turn ascribed to a greater ability to mentalize. In addition, the more she understood her own reactions and feelings, the more comprehensible others became.

Daniel also described how increased mentalization made him able to deal with situations that would have been hugely problematic before therapy. He said, "*Other people can have a really shitty day without saying anything. I understood how others' negative or positive feelings did not necessarily have anything to do with what I had said or done*." Miriam also gained a greater understanding of her attribution of feelings and thoughts to others, by looking at the way in which she interacted with others from a new perspective. She described this awareness of own patterns as an epiphany. During therapy she gained an understanding of how she was allowed to feel the things she felt, and that yelling at herself did not make the situation any better. Miriam's increased tolerance and acceptance of own feelings also made her realize that she was a whole person who had needed the maladaptive coping mechanisms to deal with her illness.

> Miriam: [Before therapy] I felt I had to give up my personality. But later [during therapy] I found out, the things I was doing were not my identity. I am still the same mum, the same wife. The way I am overthinking and ascribing feelings to others, it has nothing to do with my identity. It was just tools I needed in a period of my life to survive. It was an aha experience. I am not my struggles.

Daniel and Miriam, who both had 'careers' in psychiatry since childhood, described how MBT gave them something that previous therapies had not. They both emphasized how MBT enabled them to connect with their feelings. They both gained a sense of stability, that in turn enabled them to work through traumas and gave them hope for an actual recovery process from psychological struggles. Miriam also spoke about how MBT enabled her to begin a different treatment for her traumas. In addition to highlighting the positive sides of MBT, Daniel mentioned how he missed a focus on personal resources, and felt there was little room in the group therapy to talk about positive experiences. Amanda talked about how she missed a focus on her internal states, rather than just a focus on understanding others, and mentioned how she could have benefited from more explicit learning about emotions.

## Second meta-theme DBT: a predictable program felt safe but less flexible

The second meta-theme of DBT explores the participants' experiences with the structure of DBT as well as their experiences with their therapists and their groups. Both Eva and Sara talked about how the educational format of DBT was essential to their recovery process. Eva said, "*DBT gave me concrete things to go out and try*," and Sara said, "*I do not think you can do it [recover] without the education, you need something systematic, you need to learn it on a child's level*." These quotes demonstrate to a certain extent how the participants valued the pedagogical format of DBT.

However, Eva, Sara, and Lisa explained that some aspects of the specific format of the DBT skills training were challenging. Eva described how she felt like the therapists in the group skills training could be inflexible about what worked for whom. Eva said, "*Not everything works for everyone. Like mindfulness, it did not work for me.*" Similarly, Sara experienced that the skills trainers occasionally presented advice as if behavioral change was easy. As a result, Sara felt that not all the advice from the group skills trainers were useful, when it was not adapted to the individuals in the group. Both Lisa and Sara explained how some of the other group members did not contribute to the group, either by not showing up or by being quiet. Lisa explained the consequence of participants not showing up: "*[…] I felt it ruined both the dynamic in the group and what I could get out of it when I had no one to work with. One time it was just me alone with two therapists, no one else showed up.*" Similarly, Sara described how the lack of participation from quiet group members affected her progress in the group because it made learning interpersonal skills difficult.

All the participants highlighted the importance of genuine therapists. Anna and Eva felt like their therapists cared for them. Anna spoke of her therapist's importance for her recovery, "*Having a person who genuinely wishes the best for you, but at the same time sets boundaries and all that stuff… She means a lot to me*." Lisa and Sara both highlighted the importance of how their therapists could share their reactions and emotions. About her individual therapist, Lisa said, "*I remember it was something I appreciated about her, when she said something, because I could see, wow the woman reacts, she has feelings!*." Sara and Anna emphasized how their therapists felt predictable and safe. Anna described what she valued with her therapists: "*The fact that they were concrete, and that it was easy to understand what they meant made me trust them a lot. I knew they were there, and I knew they would tell me the truth.*"

### Second meta-theme MBT: the therapist followed my lead, which made therapy relevant but challenging

The last meta-theme explores the participants' experiences with the therapists and the group members. For Daniel and Miriam, a safe attachment and emotional bond to their therapists were valuable. Daniel emphasized how the therapists made use of his way of expressing himself, which in turn strengthened the emotional bond. He said, "*She gave me an image of my way of being near others. She said, "if you imagine a cactus in the desert, who wants to hug a cactus?," and suddenly I realized how others perceived me*." Daniel felt seen and understood by his therapist, who managed to tune into his use of language and ways of understanding the world. Miriam also talked about how the other group members became internal objects she could evoke to comfort her in times of pain, and it seemed like Daniel experienced an emotional correcting relationship in a therapeutic dyad that contained all parts of him.

Amanda, in contrast, often experienced the therapists as passive. For example, she experienced the group therapy as immensely intense and challenging, due to the group members' combined emotional instability. She said, "*Everyone is unstable, it's so volatile, because no one is stable, except the therapists, and you can feel the intensity and … it's like matches always being in flames*." For her, the therapists did not do enough to make the intensity bearable. Amanda also experienced that her individual therapist did not understand what she needed or took her concerns seriously enough. She perceived him as passive, and to a certain degree, dismissive, particularly regarding her experiences with domestic abuse.

## Discussion

### Different explanatory models for similar symptoms

The IPA indicated both similarities and differences in the groups of participants regarding how they understood themselves prior to treatment. One might argue that ways in which the participants described their lives before MBT and DBT could indicate how these stories became influenced retrospectively by the treatments they received. They all spoke about how life could be chaotic and overwhelming, which may be attributed to symptoms related to the diagnosis (41). However, differences could be seen in how they described their lack of coping mechanisms. The DBT participants spoke about not being able to change their mindset and how they felt. This may represent a way of thinking that is influenced by the cognitive behavioral tradition DBT springs out of, where working with changing thoughts is an important way of regulating emotions (85). In contrast, the MBT participants spoke about their lives before therapy from the perspective of the other, which may indicate a mentalizing stance (39, 86). There was also a striking contrast in the representation of self-harm in the participants' stories. Most of the DBT participants provided detailed descriptions of self-harming experiences, whereas the MBT participants did not elaborate on the subject to such an extent. This may be a result of the focus on self-harm in DBT and MBT, respectively. The former uses skills training actively to replace self-harm as a coping mechanism (21), whereas the latter focuses less on such skills, and believes the frequency of self-harm will decrease with increased capacity to mentalize and reduced attachment avoidance (39).

Furthermore, participants in both groups highlighted a tendency to misinterpret others and sensitivity to rejection and judgment cues, however, this was described somewhat differently. The DBT participants were particularly concerned with not being able to perceive interactions with others and the world objectively. These descriptions may be influenced by DBT's concept of "emotion mind," where assumptions are made in an emotional state without checking the facts (85, 87, 88). The MBT participants rather emphasized not understanding their own and others' inner states, in line with MBT's focus on mentalization failures and psychic equivalence (22, 39). Some of the MBT participants also described how mentalization failure could lead to challenges with boundaries, inwards and outwards. MBT assumes that struggles with boundaries are linked to disturbance of mirroring in childhood (39). One could therefore argue that receiving MBT not only helped them form better relationships going forward, but also gave them a better understanding of why their past relationships had been so turbulent.

### Explicit and implicit ways of facilitating the change narrative

The participants' stories of change as a result of treatment seemed to be told from a perspective situated in the therapeutic traditions they were socialized into. Elements from their stories represent both the theories of psychopathology and specific techniques used in the healing process. The DBT participants indicated explicit learning of a provided approach, and the MBT participants' stories concerned a more implicit or procedural process of change.

The DBT participants spoke about learning to look at situations more objectively and understand their own contributions. DBT theory states that you can change an emotion if you change your interpretation of a situation to fit the facts (85). This enabled the DBT participants to understand how their interpretations were affected by emotions and their background. The DBT participants also spoke about the importance of the educational format, e.g., learning about emotions. This could be ascribed to the DBT skill of "observing, describing, and naming emotions," and to a pedagogical approach to emotions in the individual therapy (21, 85). Furthermore, concrete tools to practice were highlighted as important for change. Thus, change in therapy might have been experienced through an explicit and educational learning process where new meanings were developed through acquiring the knowledge and tools offered by DBT.

The MBT participants, in contrast, emphasized the importance of having enough time for change. MBT proposes that being able to distinguish between fantasies and the real world takes time (39). Integration of past and present, and how early relational experiences may have affected them, were stated as important for change. This is aligned with MBT theory that an individual's ability to interpret mental states and intersubjective transactions are affected by early attachment relations (39). Lastly, the MBT participants emphasized the importance of implicitly and procedurally developing and strengthening their ability to mentalize. One of the goals of MBT is to restore, maintain, and keep mentalization going when it would otherwise be lost (22). These differences converge with novel findings by Barnicot et al. (89) who studied patients' experience of MBT and

DBT for BPD. Among their findings it was proposed that learning emotion regulation skills and distress tolerance were uniquely characteristic of having received DBT while learning to mentalize in an interpersonal context was unique to experiences of MBT (89).

Both groups told a story of change highly influenced by the content of the treatments they received, but the process could be understood as different. One interpretation could be that the DBT participants acquired a map or learned an approach already made specifically for their problems, whereas the MBT participants created the map or explored new ways of moving forward. However, the differences between the two treatments are not clear cut. MBT is also a manualized treatment with concrete interventions (39, 90, 91), and automatization of skills in DBT (85) may create procedural learning. The difference might therefore be how DBT offers an explicit and declarative acquisition of knowledge and skills, and how MBT uses a more fluid and following exploration to create procedural learning in an implicit way (16, 21, 39, 85, 86).

The explicit and implicit procedures were also reflected in descriptions of how the therapeutic relationship could facilitate or challenge progress. This could reflect how the therapeutic relationship unfolds differently in different treatments (15, 16, 18, 92, 93). Research has indicated that an interaction between the specific and the common factors is needed for therapeutic change (17, 19). This has been elaborated by Ulvenes et al. (18) who proposed that the working alliance may operate differently in each therapeutic tradition. The significance of the working alliance might be common, but its interaction with a particular method may not be Ulvenes et al. (18). Research also suggests that treatments aimed at deeply rooted personality structures will often need a stronger emotional bond, compared to, for example, therapies targeting specific phobias through exposure (92, 93).

The DBT participants emphasized predictable and structured therapists and how this promoted a feeling of safety important to their healing process. However, some of the DBT participants experienced a lack of flexibility in the group. As the structure may be similar for most DBT groups, adapting tasks to specific participants may not be provided. This could be related to how some of the participants spoke about lack of attendance and participation from other group members, which they felt negatively affected the effect of the treatment. One interpretation could be that some participants experienced the topics as either unengaging or less relevant, hence participation might have suffered.

The MBT participants' different experiences in the therapeutic relation might be related to the not-knowing position in MBT (94). One participant, Daniel, emphasized how the therapist followed his lead by speaking his language. Amanda, in contrast, perceived the therapists as passive and unauthoritative, contributing to a feeling of insecurity in treatment and intensity in the group. This could indicate a weaker working alliance. She still improved her ability to mentalize, which may imply BPD patients can experience change although the emotional corrective experience is not as powerful.

The findings from this study may indicate that in MBT-G, where group members may decide the agenda, the therapists can either seem too passive or like they follow the group members lead. The content of the group may either seem emotionally relevant or it can make the group feel unstable and uncontrolled. In contrast, the therapists in the DBT group may be perceived as both predictable, and more rigid and inflexible in the pedagogical format. Furthermore, the content of the group may either feel controlled and relevant, or irrelevant and unengaging. These results converge with Garred and Gough's (16) findings indicating that a therapist's project could be described along the dimensions from a *leading* (DBT) to a *following* (MBT) strategy, and from a *held* (DBT) to a more *fluid* (MBT) format. This could be understood considering the two therapeutic traditions that DBT and MBT springs out of, namely cognitive behavioral therapy and psychodynamic therapy (21, 51). In the cognitive behavioral tradition, it is more common for the therapist to explicitly educate the patient and rehearse new and concrete skills to handle or relieve the patient's symptoms (95). In psychodynamic tradition the therapist, to a greater extent, seeks to follow the patient's lead in developing a new understanding and gaining insights. In psychoanalysis, this is often referred to as evenly suspended attention or the analytic attitude (96, 97). Furthermore, Nilsson et al. (20) found that patients who had received cognitive therapy experienced their therapists as experts with concrete tools to teach in a structured and safe therapeutic setting, but that this setting also could be experienced as rigid. On the other hand, patients who had received psychodynamic treatment experienced their therapists as someone with whom they could explore past and present, and the therapists were experienced as more passive, which for some patients was a challenge (20).

The elements described above overlap with other qualitative studies investigating patients' experiences of DBT or MBT (60, 61, 89, 98–104). These studies have accounted well for the various helpful elements in DBT and MBT, such as the quality of the working alliance and the usefulness of specific interventions. One may therefore argue that the separate elements demonstrating the effectiveness of these talking cures have been major suspects in the detective story about what makes psychotherapy work. However, the complete stories of change have to our knowledge been less investigated. These stories can shed light on how a cultural change narrative can develop as a result of psychological treatment and that such a narrative could be explicitly or implicitly transmitted from therapist to patient.

## Change through the internalization of a specific narrative

In mental health care a variety of psychotherapeutic methods are provided. In this study however, the participants were aware of the specific treatment in advance. One could therefore argue that the socialization into the treatment already began before the treatment started, and thereby the internalization of the cultural change narrative. This might have influenced the development of expectations (30). This is also evident in the interviews, where the participants consistently referred to treatment as either DBT or MBT, and previous treatment they received as just therapy. This might be due to the nature and focus of the project, but it could also reflect an unconscious affiliation or association with the method itself.

The development of expectations toward a treatment could also depend on the therapist's ability to provide a believable rationale that is accepted by the patient. The rationale is one of the common factors highlighted by the CF approach (6, 29, 30). Several participants spoke about how DBT and MBT were more helpful than previous treatments. This may imply an acceptance of the rationale, and possibly that their expectations were met or exceeded. However, the cultural change narratives described indicated differences in the rationales provided by the treatments. In DBT one rationale could be the importance of

addressing emotion dysregulation because it can lead to harmful behavior. Emotion regulation could be developed by practicing the ability to accept emotional states through mindfulness and distress tolerance (85). These skills were described by the DBT participants as important for recovery. In MBT, one assumes that the healing process relies on an increased capability to mentalize, and that increased ability to learn from interpersonal situations outside of treatment is facilitated through the therapeutic relationship (39). Increased capability to mentalize was even referred to as a superpower by one of the participants. These differences support the claim that the common factors, exemplified by the rationale, must be put into the context of the specific therapeutic techniques for them to be effective (105). Furthermore, it illuminates how two therapeutic methods with many similarities on the surface, could create differing descriptions of change on the experiential level of the individual patient receiving either MBT or DBT. These descriptions seem to convey the internalization of the specific culture that makes up DBT or MBT and thus the internalization of the cultural change narrative that each treatment offers.

The interaction between common and specific factors can also explain why different rationales for treating the same disorder could be equally effective. One explanation might be that the particular content is not of highest importance, but whether the rationale is believable, accepted and considered relevant to the patient. This could be seen in the light of epistemic trust, a concept embedded in the theoretical frameworks of MBT. The participants' seemed to have considered the rationale's information and knowledge about the world as relevant to them (106). One may therefore argue that epistemic trust could be important when a therapist conveys the rationale to a patient. To investigate this, one may look to Fonagy and Allison (107). They proposed several communication systems that contribute to developing epistemic trust, and possibly the ability to accept the treatment's rationale.

Communication system 1 refers to the teaching and learning of content and system 2 refers to the re-emergence of robust mentalizing (107). According to this conceptualization, all treatments use communications system 1 to convey their rationale and for communicating that the therapist possesses knowledge and personal characteristics that could prove valuable to the patient (108). Based on our findings, it could be argued that DBT, to a greater extent than MBT, makes use of explicit teaching throughout the treatment as a way of fostering epistemic trust. This is because the rationale and its relevance for the patient, seems to have been communicated pedagogically. Although MBT also consists of psychoeducational groups, it could be argued that important elements of MBT are lacking in concrete and explicit operationalization (109). Explicit learning also seems less prominent in the MBT participants' change narratives. However, recent studies of MBT have taken interest in developing an explicit pedagogical stance more clearly seen in DBT (38). Psychopedagogic interventions suited to MBT are suggested to be information about emotions, attachment, and social rules (38).

Communication system 2 concerns how therapists can aid the development of epistemic trust by exploring the content of the patient's mind rather than offer new knowledge (107, 108). For example, if the therapist marks the patients experiences and emotional states, mentalizes the patient, and responds sensitively, "the patient takes a step back from epistemic isolation, and […] gradually begins to exercise his/her mentalizing skills" [(108), p. 9]. However, according to this conceptualization, "mentalizing is not its main goal, but the improved mentalizing that results from it enables the patient to start to approach and learn from their wider social context" [(108), p. 9]. Improved mentalizing, and thus an ability to learn from and consider the perspective of others, was emphasized in the MBT participants' change narratives.

Despite the emphasis on mentalization in MBT, one could argue that some explicit techniques in DBT have overlapping qualities with communication system 2. For instance, the "wise mind" in DBT involves taking a pause and considering the possibility that other peoples' intentions could be different from the patient's own emotional mind (85, 88, 110). The DBT participants spoke about learning that their perception did not always coincide with the actual situation, suggesting that the DBT therapists explored and marked the patients' emotions and experiences. This could have led to an understanding of how emotions affected their interpretations and reactions, which in DBT is referred to as "emotion mind" (85). One might therefore argue that "emotion mind" is similar to psychic equivalence in MBT (86, 88). Common features of DBT and MBT could thus be disguised by different language and treatment cultures but help patients in similar ways regardless. It also provides an example of how the common factors are put into context of the specific treatments. This overlap has led some authors to suggest incorporation of mentalization techniques in DBT to increase self-coherence, metacognition and attachment security (88). Even though epistemic trust is a concept primarily used in MBT, it could be useful when attempting to understand how patients accept a treatment's rationale, and therefore be relevant to different schools of psychotherapy. Simultaneously, one could question the application of epistemic trust as a concept on the DBT participants' experiences as it may compromise with established DBT theory.

The CF approach also stresses the importance of a culturally embedded explanation for the disorder that is being treated; an explanation in line with the dominant view of human experience in a given culture at a given time (6, 29, 30). An important part of the participants' change narratives was being provided an explanation for why they struggled, facilitating normalization and acceptance. These different explanations were evident in the participants' narratives of how they struggled prior to treatment. Although the explanations were different, both fit the dominant view of human existence in the present culture and time, and both led to acceptance and normalization.

The CF approach also highlights the importance of a therapeutic procedure or a healing ritual that promotes progressive behavior (6, 29, 30). The DBT participants easily expressed these procedures as it was communicated explicitly in therapy. It seemed harder for the MBT participants to formulate specifically what the treatment provided, but they pointed to how interactions with others changed as they increased their ability to take the other's separate mind into account. This may reflect the development of a mentalizing stance.

The common features of psychotherapy, suggested by the CF approach (6, 29, 30), interacted with the treatment the participants received to create a cultural change narrative. These elements are all dependent on the therapist and the therapeutic relationship, which is regarded as particularly important in the treatment of BPD (70, 111). The working alliance was perceived differently both within and between the groups of participants. The variance ranged from the emotional bond being central for change to elements of the working alliance being strained. These results can be understood in light of Finsrud et al. (31) who propose that various measures of the working

alliance related to change can be explained by two underlying factors, which in turn suggest two different pathways of change. The first pathway, *Confidence in the therapist*, suggests that patients do not differentiate between various therapist qualities, such as empathy and expertise. The second, *Confidence in the treatment*, is reflecting the patient's experience of buying into the treatment. The latter could be related to the therapist's ability to provide a believable rationale, which is accepted by the patient, and thereby create expectations and hope connected to the treatment ritual itself (6, 30).

Based on these findings one may argue that the participants who emphasized the emotional bond as important for change had confidence in the therapist. The participants who experienced the therapeutic relationship as difficult, but experienced change regardless, might have been on the second pathway, confidence in the treatment. This may imply that even though the bond was described as strained, the therapists seemed to convey a believable change narrative by tapping into the cultural healing myth of the treatments and linking this to expectancy and hope (6, 30).

To be able to convey confidence in the treatment, it seems central that the therapist believes the rationale they are providing. Studies on expectancy effects have suggested that treatment effects increase with the provider's belief in the treatment (6, 33, 34, 38, 112, 113). This supports research suggesting that being anchored in a theoretical framework is associated with positive outcomes (114, 115). Considering the effects of placebo and expectancy one may argue that one central characteristic of expert therapists is that they believe in, and master, the treatment they provide. This is in line with our findings, where therapist characteristics became central aspects of the participants' change narratives.

## Conclusion and limitations

This study suggests that DBT and MBT facilitate different cultural change narratives in their patients. The DBT participants spoke about the provision of an explicit approach, where concrete tools, techniques, and knowledge were offered, as well as a therapeutic relationship consisting of predictable and safe therapists. In contrast, the MBT participants spoke about a long-lasting process of procedural learning, focused on mentalizing abilities through exploration of past and present as well as describing a therapeutic relationship where the therapist followed the patient's lead. Hence, the change narratives received by the two groups of participants seemed strongly influenced by the culture, myths, rationales, explanations, and procedures represented in the treatment they received. When considering the experienced impact of psychotherapy, the culturally embedded change narrative, and how it is created and conveyed, seems to strongly influence the impact of the received treatment. This is in line with the essential elements proposed by the CF approach. The specificity of the treatment the participants received provided a unique opportunity to research the joint effects of the methods provided and the therapist's impact on the participants' experiences of change. As this is one of the first studies that specifically target the cultural change narrative, further studies seem in strong need.

There are several limitations to this study that warrant further investigation. Firstly, IPA is interpretive in its nature and the findings of the present study will therefore both be a result of, and limited by, the authors' pre-conceptions, values, and interests (82). With this in mind, multiple ways of analyzing the material are possible. There has been an attempt at transparency regarding the analytic path. The quotes will inevitably mirror a small sample of the whole material and other researchers might have been interested in different subjects. The limited number of participants, the unequal number of DBT and MBT participants, and the single male participant are other limitations. Lastly, we wish to address that several participants described experiences of severe stigmatization on account of their diagnosis in mental and somatic health care. We recognize this as an important issue to address, however, this was beyond the scope of the study. Future research on this topic is encouraged.

## Implications

The study has shed light on the significance of theories of change embedded in all psychotherapies and how this is conveyed and communicated. These findings seem to converge with the significance and interest therapists put into their clinical theories of change. This is because the cultural change narrative may become a core component of therapeutic change. Furthermore, it may suggest the strengths that lie in treatments and therapists that are able to offer a complete healing myth consisting of explanations, techniques and distinct ways to facilitate the therapeutic relationship. Therapists who accomplish this could benefit from placebo and expectancy effects. This may also relate to therapist affiliation, and allegiance effects, because if therapists believe in what they are offering, the healing myth may be more believable for the patient. Thus, it could be accepted and integrated into their stories of change. One could therefore argue that the most effective therapists are those who are allowed to provide the treatment they believe in. Furthermore, according to the Evidence-based practice in psychology (EBPP), patients have the right to receive treatment befitting for their characteristics, culture and preferences (116). This might support a pluralistic approach to the treatment of mental illnesses in public mental health care.

Additionally, a lack of pluralism could potentially limit the field of psychotherapy's progress in research. This is because favoring one evidence-based treatment over another could hinder equal chances of funding (117). A pluralistic approach to the treatment of mental health also makes it easier for practitioners to learn from each other and from other schools of thought. Aspects of the present study suggest what MBT and DBT might learn from each other while highlighting the importance of the two treatments holding on to their respective healing myths. This could benefit the treatments and the therapists, but potentially also patients who will meet well-educated and well-informed professionals who have been exposed to a wide range of therapeutic methods, interventions, techniques and thinking (118, 119).

## 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 Norwegian Regional Committees for Medical and Health Research Ethics, National Center for Research Data and The Science Ombud at University of Oslo have approved the study. The participants received written and oral information about the project and its purposes. The participants signed a letter of consent before the interviews were conducted. They were free to end participation if desired. During the length of the project, careful consideration of the BPD patient group in general, and the participants in particular, has been important. Patients with BPD often experience stigma in psychiatric and somatic health care, and in society in general. Attending to the participants' well-being as well as maintaining respect have been at the forefront of our consciousness at all times. The potential benefits of the study have been compared to potential costs. Measures have been taken to minimize risk throughout the whole project, but especially in the making of the interview guide and in carrying out the interviews.

## Author contributions

TS and AHT conducted the study and wrote the manuscript. ES and EF contributed with concept, design, conceptual issues, analysis, and edited the manuscript. All authors contributed to the article and approved the submitted version.

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## 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.

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## Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2023.1149984/full#supplementary-material

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# Outpatient care for adolescents' and young adults' mental health: promoting self- and others' understanding through a metacognitive interpersonal therapy-informed psychological intervention

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**Introduction:** Psychological distress may result in impairment and difficulty understanding oneself and others. Thus, addressing metacognitive issues in psychotherapy may improve psychopathology in adolescents and young adults (AYAs). We aimed to compare metacognitive interpersonal therapy (MIT)-informed psychotherapy with other treatment-as-usual (TAU) therapies.

**Methods:** We administered the Global Assessment of Functioning (GAF) scale, the Clinical Global Impressions–Severity (CGI-S) scale, and the Brief Psychiatric Rating Scale (BPRS) at baseline (BL) and at treatment termination (the endpoint was at 6 months and any last results obtained before that term were carried forward in analyzes). Patients received concomitant psychiatric and psychological treatment.

**Results:** Sixty AYAs were involved in the study. There was a significant reduction in symptomatology after the intervention. Twelve patients (17%) dropped out; treatment adherence was 83%. In the MIT group, 2 patients dropped out (11%), and in the TAU group, 9 patients dropped out (19%). All scales showed a significant reduction in symptoms between baseline (BL) and the 6-month endpoint: GAF ($\chi^2 = 6.61$, $p < 0.001$), BPRS ($\chi^2 = 6.77$, $p < 0.001$), and CGI ($\chi^2 = 7.20$, $p < 0.001$). There was a greater efficacy for the MIT group in terms of symptom reduction on the BPRS ($t = 2.31$; $p < 0.05$).

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**Conclusion:** The study confirmed the efficacy of early and integrated care in adolescence and suggested greater symptom reduction for a psychotherapeutic intervention focused on stimulating mentalization skills. The study indicates the usefulness of this type of approach in the treatment of adolescent psychopathology. Due to the small sample size, the results need replication.

KEYWORDS

**metacognitive interpersonal therapy, psychotherapy, adolescence, treatment adherence, general psychopathology, drop-out rate, functioning**

## 1. Introduction

The World Health Organization (WHO) (1) reported that 10–20% of children and adolescents had mental health problems prior to the COVID-19 outbreak. The onset of about half of mental disorders occurs within 14 years of age, with three-fourths having their onset before age 18 (2, 3). Generalized anxiety disorder and depression are the most common disorders (4), and their prevalence among young people has risen in the last 25 years (5). Depression and anxiety impact adolescent development negatively, including lower academic performance, school dropout, strained social relationships, increased risk of substance abuse, self-harm, and suicide (6–9).

The COVID-19 emergency caused a health alert and sudden changes in daily life and mental disorders (10–12). In children, depression and anxiety were among the most common mental disorders (13, 14). Young people suffer behavioral and emotional changes, such as sleep problems, phobias, increased drug and alcohol use, isolation, loss of interest, and irritability (15). Although in this study we will not focus on the effects of the pandemic on adolescent and young adult patients' (AYA) treatment, the pandemic affected patient recruitment and service access. Several studies aimed to identify effective interventions suiting adolescents' needs during the pandemic (16–21).

Greater accuracy and definition of care pathways would possibly combine emerging evidence with proven pharmacological (22, 23), psychotherapeutic (23–25), and combined interventions (26, 27).

Cognitive behavior therapy (CBT) is effective in treating anxiety and depression (28). However, outcomes are not yet entirely satisfactory, mainly due to high dropout and insufficient remission rates. Studies reported low response and premature psychotherapy termination, especially for adolescents with moderate to severe anxiety and depression. Concerning dropout, one study of 406 patients reported it to be 37% (29), a meta-analysis reported 23% (30), and other studies reported lower rates [12.2% (31)–13.3% (32)].

Another issue is remission. A meta-analysis of CBT in childhood and adolescence (28) showed remission to occur in only 53.2% of adolescents with depressive and 50.7% of adolescents with anxiety disorders. Against this background, current protocols clearly need improvement.

Since the capacity to reflect on mental states and use psychological knowledge for purposeful problem-solving is reduced in many patients, it is reasonable to consider it a relevant treatment target (33). One of the underlying reasons for adopting the metacognitive interpersonal therapy (MIT)-informed approach is that many adolescents have difficulties understanding and naming what they feel or considering their negative views about themselves and others are not matter of fact, but just ideas. As a consequence, psychotherapy with adolescents is likely to benefit from focusing on their capacity to understand mental states and use this knowledge adaptively.

Several studies showed that skills related to metacognition (33, 34) and mentalizing (35) are important in helping adolescents to understand themselves and others. Mentalization is the ability to think and reflect on one's own experiences and formulate interpretations of one's and others' behavior (33, 36). It involves socio-cognitive functions, including the recognition of emotions, theory of mind, mind-reading, and reflective function (37).

In adolescents with borderline (confused mentalizing) and narcissistic (excessive certainty about others' mental states) personality traits, abnormal mentalizing was found to mediate the effects of adverse childhood experiences on their development (38).

Poor metacognition was found in various mental conditions (39–41), and significant increases in adolescents' metacognitive abilities were observed after completing MIT (42, 43). An intervention that combines symptom-focused work with MIT (42–44) holds promise to improve treatment adherence and outcomes in adolescents with a wide array of symptoms and behavioral problems.

MIT for adults with personality disorders (PDs) has received empirical support from a series of case studies (45–47), pilot non-controlled studies (48), and randomized controlled trials (RCTs) (48). In adolescence, it has been successfully applied in early psychosis (41) and an RCT of adolescents with avoidant PD. (49) MIT combined with mentalization-based treatment improved outcomes and was associated with low dropout rates in avoidant PD. (50) Some aspects of MIT were included in a DBT-based protocol for PD requiring hospitalization; results were satisfactory (51). An RCT of group-MIT for PDs obtained large effect sizes for the MIT vs. treatment-as-usual (TAU) group on alexithymia, mastery, and self- and other-related metacognition (48). A pilot non-inferiority RCT of metacognitive and compassion treatment vs. CBT + medication for schizotypal PD yielded larger reductions in general symptomatology ($\eta^2 = 0.558$) and larger increases in metacognition ($\eta^2 = 0.734$) in the experimental group vs. CBT + medication (52). Overall, MIT has shown effectiveness on symptoms and social dysfunctions.

The current preliminary observational study aimed to examine treatment adherence, safety, and efficacy of MIT treatment in adolescents. To meet this goal, we compared the outcomes of an AYA group with anxiety and/or depressive disorders receiving MIT therapy with another receiving TAU (consisting of other psychotherapies not focused on metacognition but well-established in our service).

Here, we tested whether the group receiving MIT-informed psychotherapy, i.e., a combination of symptom work promoting metacognition and counteracting maladaptive interpersonal schemas was able to (a) guarantee treatment adherence as assessed with a number of dropouts; (b) be effective in terms of global psychopathology and functioning. We compared the group receiving MIT-informed therapy with TAU as routinely delivered in our unit.

# 2. Methods

## 2.1. Study design and procedure

This study was a longitudinal, prospective, naturalistic, observational study, conducted in a hospital psychiatric service dedicated to Adolescents and Young Adults (AYA). The Fondazione Policlinico Universitario A. Gemelli IRCCS 'Early Intervention for Adolescents and Young Adults' service provides outpatient visits and day-hospital admissions. Help-seeking patients were referred by external practitioners and other institutions. They were visited by psychiatrists of the AYA service, who assessed them in terms of diagnosis and study eligibility. Either patients or, if underage, their parents or legal tutors received adequate information regarding study aims and procedures and provided consent to participate. They were informed they could receive 16–24 weekly sessions of individual psychotherapy (but at least 8 sessions were required for being included in the study), each lasting 50 min, along with the possibility of receiving pharmacotherapy. The total duration of psychotherapy could vary from 2 to 6 months. Patients who adhered to the study received baseline assessment by their treating psychiatrists and were introduced to their psychotherapists. Treatments started within 2 weeks after assessment. The assessment carried out at baseline was repeated at the end of treatment. When this occurred earlier than the 6-month endpoint, results were carried forward for statistical purposes.

Psychotherapy could be carried out at AYA service, but patients could opt for private psychotherapy.

## 2.2. Participants

Patients referred to the service from May 2020 to March 2022 (which happened to be during the COVID-19 pandemic) were screened for eligibility. Participants had to be at least moderately proficient in Italian. Among the 111 patients screened, 60 (54%) met inclusion criteria and completed baseline and endpoint assessments. Recruitment implied assignment to MIT or TAU on the basis of patient preference and therapist availability, with both treatments being presented as potentially equivalent and no effort being made to persuade patients (or their legal tutors/parents, if patients were not of legal age) to prefer one or another. Hence, any difference that might arise in sociodemographic parameters between MIT and TAU would only be attributed to chance.

## 2.3. Exclusion criteria

Exclusion criteria were the presence of severe systemic diseases, intellectual disability or borderline functioning, psychosis, psychoactive substance use or severe eating disorders needing inpatient treatment, traumatic cranial injury, severe neurological disorders, failure to provide informed consent, and current or past psychotherapy experience. Patients were free to withdraw consent at any moment. Those withdrawing consent were instantly assessed upon withdrawal, and their results were carried forward in the analyzes. Patients who failed to initiate treatment within 2 weeks from baseline and patients/parents who refused treatment or participation in the study were excluded.

## 2.4. Assessments and outcome measures

A baseline assessment was conducted at the first visit. Endpoint assessment was set at 6 months after baseline; when assessments were made before this term, they were carried forward to the endpoint. Patients' developmental and family histories were investigated at baseline with a semi-structured interview. Primary outcomes were the reduction of psychometric scale scores and the increase in the functioning assessment.

The *Global Assessment of Functioning (GAF) scale* (53) rates social, occupational, and psychological functioning. Scores range from 1 ("severely impaired") to 100 ("extremely high functioning"). In this study, we used the Italian version of the scale included in the DSM-IV-TR (54), which showed good psychometric properties in Italian populations of adolescents and young adults (55, 56). Cronbach's alpha was found to be 0.74, indicating good reliability (57).

Clinical Global Impression–Severity (CGI-S) scale (58) is a frequently used 7-point Likert scale (59). Higher scores indicate worse psychopathology. CGI-S measures the severity of patients' illness and its improvement over treatment. Cronbach's alpha was 0.998, which indicates excellent reliability (60).

*Brief Psychiatric Rating Scale (BPRS)* is a 7-point Likert scale (plus the option of considering an item not rated) used in order to assess the level of general psychopathology around a broad range of symptoms. A higher score indicates more severe psychopathology. It has been consistently used also as a measure of treatment change (61). The purpose of BPRS is to broaden the symptom spectrum investigated, for a psychopathological profile definition (62). Cronbach's alpha was found to be 0.87, indicating good reliability (63).

A response was considered an at least 50% decrease from the baseline of BPRS scores, and at least a 2-point drop from baseline on the CGI-S or a CGI-S score of $\leq$3, while a score of 1 or 2 on the CGI-S was considered a remission.

## 2.5. Interventions

### 2.5.1. Metacognitive interpersonal therapy

MIT aims to help patients improve their ability to understand their mental states, so they become a ground for more adaptive strategies to deal with symptoms and improve social functioning. Maladaptive interpersonal schemas encompass images of self and self-with-other and are common in PDs. They include negative core self-images ("I am unlovable" or "I have no value") and reactions to others, e.g.: "if I express my need to be appreciated, the other person will be critical, and I will become sad, confirming my idea of having no value." From early MIT stages, therapists help patients become aware

of the schemas that guide them, gain distance from their underlying negative self-images, and promote initial access to more benevolent representations of self and others. In the manualized form applied here (43), MIT-informed treatment included a joint formulation of shared goals, helping patients recognize and pursue their needs/desires for attachment, appreciation, exploration, and group inclusion (42, 43). MIT-informed psychotherapy attempted to engage adolescents in practices such as guided imagery, chairwork, bodywork (64), and role-playing to encourage their involvement in activities, aimed at modifying their maladaptive schemata and creating new ways to derive meaning from social interactions.

Importantly, during this protocol, MIT-informed treatment included symptom-specific, empirically supported techniques, e.g., behavioral activation for depression or graded exposure to different forms of anxiety (42). One MIT-certified therapist with 1-year MIT experience treated all MIT-informed patients and received 1-h supervision fortnightly by one of the MIT developers.

#### 2.5.2. Treatment-as-usual (TAU)

The control group received TAU that consisted of individual psychotherapy delivered according to practitioners' preferred orientation, mostly psychoanalytic/psychodynamic. Most psychotherapists conducting TAU had a psychoanalytic/psychodynamic orientation and were supervised by senior colleagues.

#### 2.5.3. Patient assignment to groups

All patients were offered integrated multidisciplinary care. Patients were assigned to MIT or TAU according to their preference and therapist availability. All patients who started psychotherapy received sufficient information about both types of therapeutic approaches and additional information about the psychotherapy they chose. In some cases, psychological therapy and medication were administered together, while in other cases, patients refrained from taking medication or they dropped out of therapy immediately and were not included in the MIT-TAU comparison. Three patients later dropped out, one from MIT and two from TAU. Psychotherapy sessions at the service's premises or in private locations lasted 50 min each. At least eight sessions were required to include the patient in data analysis; assessments were processed through the last observation carried forward (LOCF) method.

#### 2.5.4. Other interventions

Concurrent psychiatric counseling was delivered in order to evaluate the need for medication or dose changes for some participants. Psychiatric visits (not psychotherapy sessions) were scheduled weekly for 2 weeks, then monthly for another two visits, and then bi-monthly. Visits were scheduled based on the patient's clinical conditions and in agreement with the patient/family, but other visits could be added at patients'/tutors' requests. Parents in both groups of patients were offered family or couple psychotherapy delivered by therapists working in the community.

### 2.6. Safety assessment

We assessed safety with spontaneous reporting of adverse events weekly. The caring physicians filled in a list of possible adverse events, especially focusing on the common side effects of medications used in this study, but also including items on suicidal thinking and attempts, self-harm ideation, and acts. These were labeled "severe," "moderate," or "mild." Participants were not provided with the list to avoid being overconcerned about adverse events and being influenced in their perceptions. Safety data collection was identical for the two groups.

#### 2.6.1. Ethics statement

The study was approved by the ethics committee of Fondazione Policlinico Universitario A. Gemelli IRCCS, ID 5025 Prot. N 0020268/22 of June 14, 2022. All patients and parents were informed and signed informed consent.

### 2.7. Statistical analyses

We performed descriptive statistics to assess the sample age, sex, psychopathological diagnosis, drug therapy, and type of psychotherapeutic delivered. For the main study variables, the observed median, mean, and standard deviation were calculated. Primary outcome measures were pre–post GAF, BPRS, and CGI changes. To test sample normality of distribution, we used the Shapiro–Francia and Anderson–Darling tests that yielded $W' = 0.977$ ($p = 0.037$) and $W$ 0.766 ($p = 0.045$), respectively, both ruling out normality. Hence, we turned to non-parametric tests. To analyze overall treatment response (changes in symptoms and functioning over time), we conducted non-parametric repeated-measures ANOVA. Spearman's correlations between the scores of the 3 scales were analyzed in the two-time measures. To compare groups of patients who had undergone different types of psychotherapy, we used the repeated-measures ANOVA and *post-hoc t-test*. Statistical analysis was performed using the R 4.1 version (65). $p$-values were two-tailed; statistical significance was set at $p < 0.05$.

## 3. Results

Participants were in the age range of 13–23 years. Supplementary Figure S1 shows the flowchart of participants throughout the study. The total sample (mean age 16.7 ± 2.59) consisted of 40 female participants (66.67%) and 20 male participants (33.33%). In total, 30 participants were diagnosed with mood disorders (50%), including 13 with depressive disorders and 17 with bipolar disorders; 15 (25%) had anxiety disorders; 5 (8%) had diagnosed adjustment disorder; 4 (7%) had disruptive, impulse-control, and conduct disorders; 3 (5%) had non-underweight eating disorders; and 3 (5%) had diagnosed obsessive-compulsive disorder. Table 1 illustrates demographic characteristics, baseline tests, and between-group differences, suicidal, and self-harm symptoms.

All participants were born in Italy; 27% ($n = 16$) were second-generation immigrants and had at least one parent born in a foreign country. No significant baseline differences were found regarding all variables. Spearman matrix correlations between scores on the psychometric scales (GAF, CGI, and BPRS) and a high number of emergency unit access confirmed that the instruments were capable of detecting the severity of patients' symptoms (Table 2).

Descriptive and statistical analyzes were carried out to assess whether MIT was feasible in terms of adherence and preliminary outcomes vs. TAU. We describe first the results at the level of the total

sample, and then, we compare those who received MIT ($n = 18$) with those undergoing TAU ($n = 39$). Participants ($n = 3$) who refused psychotherapy were excluded from these analyzes.

As regards overall intervention adherence, 12 patients (17%) dropped out. There were 2 patients in the MIT group (11%) and nine patients (19%) in the TAU group. Concerning overall treatment response, repeated-measures ANOVA (non-parametric) was performed to assess changes in symptoms and functioning over time: GAF BL vs. GAF at the 6-month endpoint ($<\chi^2 = 6.61$, $p < 0.001$), BPRS BL vs. BPRS at the 6-month endpoint ($\chi^2 = 6.77$, $p < 0.001$), and CGI BL vs. CGI at the 6-month endpoint ($\chi^2 = 7.20$, $p < 0.001$). All differences in psychometric scores from baseline to the 6-month endpoint were significant and in the improvement direction in all groups. Scores on psychometric scales are shown in Table 3.

Of the 18 MIT patients, 4 were responders according to the at least 50% drop of BPRS scores from baseline (vs. 1 of the 38 TAU patients, $\chi^2 = 5.765$; $p = 0.016$, $\chi^2 = 3.607$ after Yates' correction, $p = 0.057$, not significant [ns]) and 17 were responders according to the CGI-S ≥ 2-point drop from baseline or a final score of ≤3 criterion (vs. 27 of TAU patients, $\chi^2 = 3.969$; $p = 0.046$, $\chi^2 = 2.702$ after Yates' correction, $p = 0.100$, ns). All comparisons favored MIT. According to the final CGI-S score of 1 or 2 criteria, there were 10 remitters in the MIT group vs. 21 remitters in the TAU group ($\chi^2 = 0.0004$; $p = 0.98$, ns).

In the entire group of treated AYAs, the effect size was very large for the BPRS (Cohen's $d = 1.515$, Hedges' $g = 1.515$) and for the CGI-S (Cohen's $d = 1.209$, Hedges' $g = 1.209$). For the individual groups, effect sizes were very large ("huge" according to Sawilowsky, Cohen's $d$ and Hedges' $g = 3.3236$) for the BPRS and very large for the CGI-S (Cohen's $d$ and Hedges' $g = 1.518$) in the MIT group, while in the TAU group, the effect sizes were large (Cohen's $d$ and Hedges' $g = 1.125$) for the BPRS and also for the CGI-S (Cohen's $d$ and Hedges' $g = 1.132$).

As regards MIT vs. TAU, we compared outcome results on the GAF scale, BPRS, and CGI scale (BL to 6 months). On the GAF scale, the increase for the MIT group was greater than for the TAU group, $F = 6.73$, $p = 0.01$. Moreover, on the BPRS, MIT was superior to TAU, $F = 11.8$, $p = 0.001$ (Figure 1).

Concerning the CGI-S, the difference between MIT and TAU, although present, did not reach statistical significance. The $t$-test *post-hoc* analysis confirmed a significant difference between MIT and TAU after 6 months of treatment on the BPRS ($t = 2.31$; $p < 0.05$). Differences on the CGI scale did not reach significance. Separate scores by MIT and TAU groups are shown in Table 3.

TABLE 1 Sociodemographic characteristics of our sample subdivided according to the treatment received.

| Demographics | MIT | TAU | $F/\chi^2$ | $p$ |
|---|---|---|---|---|
| | $N = 18$ | $N = 39$ | | |
| Sex (female) | 9 | 30 | $\chi^2 = 3.23$ | 0.07 |
| Dropouts | 2 | 9 | $\chi^2 = 0.06$ | 0.79 |
| Age ($\bar{x} \pm SD$) | $\bar{x} = 16.75 \pm 2.47$ | $\bar{x} = 16.7 \pm 2.59$ | $F = 0.17$ | 0.67 |
| *Educational level* | | | | |
| Primary school | 2 | 2 | $\chi^2 = 0.97$ | 0.32 |
| Middle school | 9 | 27 | | |
| High school | 7 | 10 | | |
| Suicidal ideation* | 6 | 15 | $\chi^2 = 0.61$ | 0.43 |
| Suicide attempts* | 1 | 8 | $\chi^2 = 2.03$ | 0.15 |
| Self-harm behaviors* | 9 | 17 | $\chi^2 = 0.91$ | 0.33 |

MIT, metacognitive interpersonal therapy; SD, standard deviation; TAU, treatment-as-usual; $\bar{x}$, mean. *lifetime history of.

## 3.1. Safety issues

Adverse events did not differ between MIT and TAU. None of the adverse events was rated "severe"; there were only three mild and transient events in the MIT group (two headaches and one gastrointestinal upset) and six in the TAU group (two headaches, two constipation, one nausea, and one vomiting). No patient developed suicidal or self-harming thinking or committed attempts or self-cutting.

# 4. Discussion

In this study, we obtained satisfactory efficacy and safety, in terms of psychometric scale drops from baseline, as well as high adherence to treatment and a low dropout rate (18.33%) in the entire group of AYA. However, MIT-informed psychotherapy was associated with a lower dropout rate than TAU (11.11% vs. 23.08%), but also lower than most dropout rates reported in literature. Both treatments proved to

TABLE 2 Correlation matrix of clinical measures.

| Measures | Spearman's ρ | GAF BL | Emerg.Hosp. | CGI-S | BPRS BL |
|---|---|---|---|---|---|
| GAF BL | $\rho$ | — | | | |
| | $p$ | — | | | |
| Emerg.Hosp. | $\rho$ | −0.644*** | — | | |
| | $p$ | < 0.001 | — | | |
| CGI-S | $\rho$ | −0.765*** | 0.523*** | — | |
| | $p$ | < 0.001 | < 0.001 | — | |
| BPRS BL | $\rho$ | −0.633*** | 0.485*** | 0.683*** | — |
| | $p$ | < 0.001 | < 0.001 | < 0.001 | — |

***$p < 0.001$. BL, baseline; BPRS, Brief Psychiatric Rating Scale total scores; CGI-S, Clinical Global Impressions – Severity scale; Emerg.Hosp., emergency hospitalizations; GAF, Global Assessment of Functioning; $p$, statistical significance probability; rho (ρ), Spearman's correlation coefficient.

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be efficacious, but MIT-informed psychotherapy superseded TAU on the BPRS, although not on the CGI-S.

AYA mental health services often manage symptomatologically variable and complex patients (1, 16). The importance of multidisciplinary care is now recognized in these settings (57). The present study reflects a currently growing trend in the literature to conduct studies on identifying effective psychotherapeutic interventions in AYA populations (18, 19). Treating adolescents with more effective methods is currently important, due to the general increase in global individual suffering (66). Furthermore, this population has been given particular attention after the pandemic event (10–12) due to the higher impact of the restrictions compared with other age ranges (67). The increased recognition that psychopathology in the general population received [due to a

TABLE 3 Scores on the psychometric scales at baseline and 6-month endpoint of the entire sample ($N = 60$) and of the sample subdivided according to psychotherapy received [MIT ($n = 18$) vs. TAU ($n = 39$)].

| Scales | $\bar{x}$ | SE | Effect size[#] | 95% CI | *p* |
|---|---|---|---|---|---|
| | Entire sample | | | | |
| GAF BL | 6.22 | 0.119 | −1.273 | From −1.611 to −0.929 | <0.001 |
| GAF 6-mo. | 7.40 | 0.153 | | | |
| BPRS BL | 51.65 | 1.892 | 1.633 | From 1.242 to 2.017 | <0.001 |
| BPRS 6-mo. | 33.55 | 1.087 | | | |
| CGI-S BL | 3.85 | 0.134 | 0.928 | From 0.622 to 1.229 | <0.001 |
| CGI-S 6 mo. | 2.33 | 0.152 | | | |
| | MIT vs. TAU | | | | |
| GAF BL MIT | 6.11 | 0.179 | 0.210 | From −0.352 to 0.769 | 0.464 |
| GAF BL TAU | 6.31 | 0.161 | | | |
| BPRS BL MIT | 54.17 | 2.324 | −0.331 | From −0.892 to 0.234 | 0.250 |
| BPRS BL TAU | 49.41 | 2.557 | | | |
| CGI-S BL MIT | 3.61 | 0.216 | 0.323 | From −0.242 to 0.884 | 0.262 |
| CGI-S BL TAU | 3.95 | 0.176 | | | |
| GAF 6 mo. MIT | 7.72 | 0.253 | −0.394 | From −0.956 to 0.174 | 0.173 |
| GAF 6 mo. TAU | 7.26 | 0.197 | | | |
| BPRS 6 mo. MIT | 29.56 | 0.833 | 0.659 | From 0.077 to 1.232 | 0.025 |
| BPRS 6 mo. TAU | 34.82 | 1.493 | | | |
| CGI-S 6 mo. MIT | 1.94 | 0.206 | 0.390 | From −0.178 to 0.953 | 0.177 |
| CGI-S 6 mo. TAU | 2.56 | 0.204 | | | |

[#]Cohen's d, approximately 0.2 = small, approximately 0.5 = medium, approximately 0.8, or more = large.

BL, baseline; BPRS, Brief Psychiatric Rating Scale total scores; CGI-I, Clinical Global Impressions – Improvement scale; CGI-S, Clinical Global Impressions – Severity scale; GAF, Global Assessment of Functioning; MIT, metacognitive interpersonal therapy; N, number of cases; SE, standard error; TAU, treatment-as-usual; $\bar{x}$, mean; 6 mo., 6-month endpoint; 95% CI, 95 percent confidence intervals.

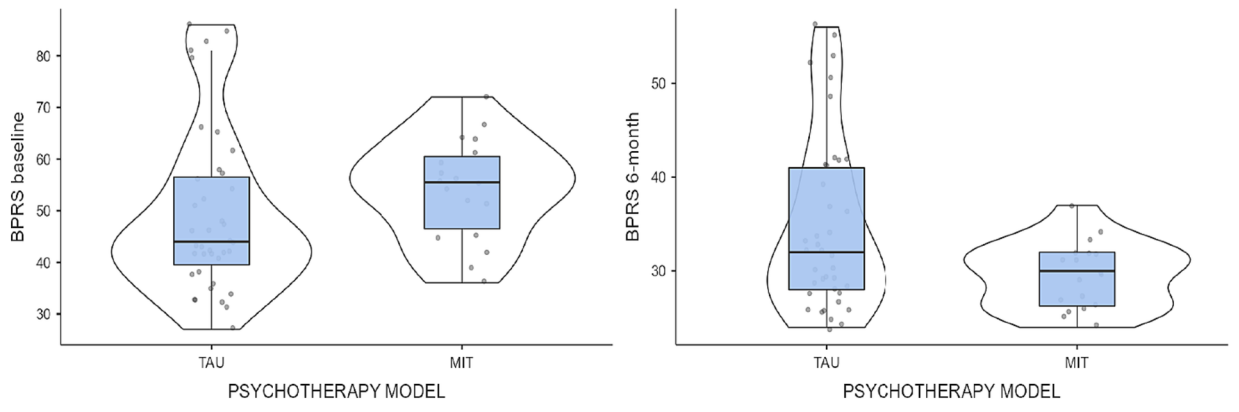


FIGURE 1
Comparison of the MIT and TAU groups as concerns the baseline–6-month comparison of BPRS scores.

purported stress-related increased occurrence of mental disorders (68)] prompted the establishment and spread of early intervention services throughout the world (69), aiming at preventing the development of severe mental conditions or reducing the onset-detection and treatment interval. Our study carried out in a dedicated adolescent mental health service active during the pandemic involved 60 adolescents who deserved clinical attention and associated pharmacological and psychotherapeutic treatment. Obviously, psychiatric evaluation to initiate the patient to possible pharmacological (22, 23) or combined (26, 27) interventions, remains central in the psychotherapeutic intake. Overall, the study showed good efficacy of integrated care at 6-month follow-up. From this perspective, it seems interesting to explore therapeutic approaches that consider prerequisites related to knowledge of self and others' mental states that are effective in counteracting maladaptive interpersonal patterns, which are typical of PDs (70). Among these, MIT is particularly focused on the ability to make sense of one's own mental states and those of others. Theoretically, this approach, when provided early, could increase emotional awareness in AYAs with psychiatric symptomatology, thus allowing them to provide meaning to their emotional experience and experience and manage interpersonal relationships. This could increase the general psychological wellbeing of young people and consequently affect the reduction of anxiety-depressive psychopathology, which is very common in the AYA population (22–24). This preliminary naturalistic study showed a low dropout rate and good efficacy in patients with various psychiatric symptoms who received MIT-informed psychotherapy.

Metacognitive interpersonal therapy (MIT) (42–44) is in fact a treatment directed at increasing awareness of mental states and becoming aware of maladaptive interpersonal patterns. This treatment is applied along with empirically supported CBT techniques to promote symptom management. In our study, MIT was compared with routinely administered TAU in our unit. Consistent with previous studies (41, 47, 48, 71, 72), the results of MIT-informed psychotherapy confirmed low absolute dropout rates and higher efficacy and lower dropout compared with TAU, as well as lower dropout than other studies in the literature. Regarding efficacy, the results were good and significantly superior to TAU in terms of both symptoms and functioning; the only scale that did not reach significance was CGI.

Both treatments were safe, with only mild and transient adverse events developing in 3 patients of the MIT groups and in 5 patients of the TAU group (one patient in this group developed two symptoms). The large to very large effect sizes we observed in both groups and the entire sample indicate that help-seeking AYAs benefitted from psychotherapy.

### 4.1. Limitations

Our study confirmed previously obtained results of MIT in AYAs (41, 48, 72) but had limitations. The sample size was low and diagnostically heterogeneous to prevent us from accurately identifying and quantifying which symptoms responded to treatment. We did not assess PDs or measure metacognition using a valid scale, which constitutes the main target of MIT-informed psychotherapy. Female participants were twice as many as males. However, despite few studies reported better psychotherapy outcomes in the female sex (73, 74), others found no sex-based differences (75), and in any case, as the sex distribution in our sample did not differ significantly between MIT and TAU, it is unlikely that our results could be affected by a gender bias. Half of our sample consisted of patients with mood disorders; this probably does not reflect the proportions found in the general adolescent population (76). Furthermore, parents in both groups of patients were encouraged to consult relational psychotherapists in the community, who provided them with couple or family therapy. The progress made by parents could have affected the responses of their children to both MIT and TAU. The possible effect of the psychological adaptation of one family member on other family members' psychological status could not be explored with this design, but it would need a design where parents of one group were exposed to relational psychotherapy and parents of another were not. This should be controlled in future studies. However, in this study, taking into account that parent psychotherapy could affect children's outcomes and responses, these could not be affected differentially in the two groups as parents from both groups all accepted to endorse couple or family therapy. Future studies should focus on MIT-informed psychotherapy in comparison with other CBT techniques or with individual standardized psychodynamically informed psychotherapies.

In spite of the above limitations, our naturalistic study suggests that MIT is a promising treatment with the potential to help adolescents with mental health problems reduce their suffering and find their way in social life.

## 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 humans were approved by Ethics Committee of Fondazione Policlinico A. Gemelli IRCCS, Catholic University of Sacred Heart, Rome, Italy. The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation in this study was provided by the participants' legal guardians/next of kin.

## Author contributions

EM, LM, GF, and DC conceived the study. EM, LM, GF, DJ, VZ, DV, and MS were engaged in the clinical activities of the study patient population. DJ, VZ, DV, MS, and SP directed and conducted the data collection. EM, LM, SP, and GK organized and collected the material and wrote the first draft of the manuscript. EP, GD, and RP performed literature searches. EM, LM, GF, FM, and GK wrote the Methods and decided eligibility criteria. DC, GK, RP, and GD supervised the writing of the manuscript. DC, CV, GK, and GS revised the final version of the manuscript. All authors contributed to the writing of the manuscript, read, and approved the submitted version.

## 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.

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## Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyt.2023.1221158/full#supplementary-material

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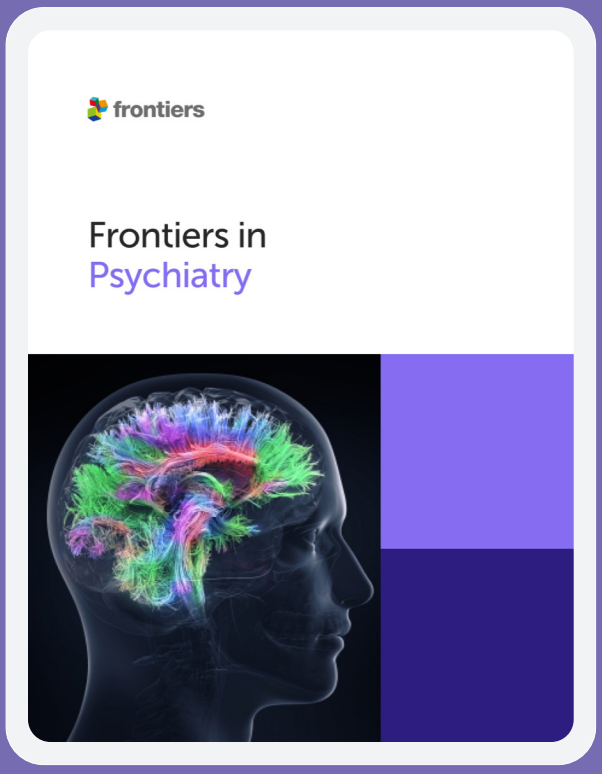


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