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The perpetration of on- and offline hate speech among secondary school students

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This study analyses the relationships between witnessing and perpetrating hate speech, both on- and offline. It is based on data extracted from a purpose-designed questionnaire answered by a total of 571 secondary school students in Almería. We used SPSS software to analyse the data collected, employing statistical analysis techniques that included binary logistic regression, and chi-square and omnibus tests of model coefficients to determine consistency. The relationships between hate speech in both environments point to an escalation of violence and transference between online and in-person aggressions. Also evident is the influence of close social environments, such as violence in schools. When a student suffers hate speech in either environment, the likelihood of them going on to perpetrate hate speech increases significantly. We conclude that the perpetration of hate speech, both on- and offline, is explained by students having witnessed or suffered in-person hate speech; having seen or heard hate speech online; and, above all, having suffered hate speech online.

KEYWORDS

social media, social problems, school community relationship, hate speech, secondary school students

1 Introduction

The relationships and correlations found to exist between the hate speech that adolescents inflict, suffer or witness, online as well as in interpersonal social contexts, are characterised by the context. Relevant studies and approaches in the fields of psychology, sociology and education that explore the relation between hate speech among adolescents in on- and offline environments raise diverse theories and elements of influence in both areas.

The theory of the transference of aggression and escalation of violence is examined in “From cyberbullying to bullying: a cross-contextual analysis” (Wright, 2017), in which the author analyses how aggressive behaviours that take place in the online environment can transfer to real life and vice versa. Using longitudinal surveys, Wright observes that adolescents who took part in cyberbullying were more likely to replicate these behaviours in everyday life, and the effects were bi-directional; adolescents who suffered or took part in hate speech online were more likely to transfer these attitudes to school and other in-person social spaces.

In another approach, the theory of online disinhibition explores the way in which the anonymity and lack of face-to-face interaction of an online encounter can lead to more extreme, aggressive and disinhibited behaviour. This theory has been widely used to explain why hate speech and cyberbullying are so common among adolescents (Suler, 2004). Bauman and Yoon (2014) show that adolescents who internalise this disinhibition in the digital environment may eventually act in a similar way in face-to-face relationships (Brown, 2018),

increasing the likelihood of them replicating the behaviour in other environments such as school or offline social spaces.

Similarly, adolescents may perceive that hate speech perpetrated online has fewer consequences than similar behaviours offline. Such a perception fosters the use of aggressive language on digital platforms, potentially desensitising adolescents and leading eventually to the transfer of these expressions to their life offline, where they tend to employ the same language and attitudes. In the same way, adolescents who witness online hate speech being used by authority figures or their peers are more likely to adopt similar attitudes and replicate them in their own interactions. Bussey et al. (2015), following Bandura's (1975) social learning theory, points out that adolescents learn and replicate behaviours, including hate speech, from observing others on social media. Correspondingly, Hinduja and Patchin (2019) explore how family background and parenting practices affect the likelihood of an adolescent engaging in hate speech, whether on- or offline.

Studies of bullying at school and cyberbullying present similar models. Adolescents of both sexes are observed to experience dramatic situations in which they start out the cybervictims but go on to become the cyberbullies; in such cases, having been a victim of online violence is an important influence on the perpetration of online violence and its subsequent perpetration (Gómez-Tabares and Correa-Duque, 2022; Castaño-Pulgarín et al., 2021). The present study explores the element of attitude, determining that adolescents who may not dare to intimidate in physical environments resort to technological media instead.

The influence of peer groups in the transmission of hate, both on- and offline, is an aspect worthy of consideration in the present study, given that adolescents tend to be strongly influenced by their friend groups (Lupu et al., 2023). If hate speech is normalised by a group on social media, it is likely that the group will reproduce such attitudes in their offline interactions, reinforcing the same patterns of exclusion and aggression in both contexts. In "Peer influence on aggression and bullying in adolescents," Espelage and Holt (2013) analyse how adolescents tend to replicate the attitudes and behaviours of their peer groups, including aggressive behaviours and hate speech. It was found that peer groups are a decisive factor in the transmission of such conduct: if an adolescent suffers or inflicts hate speech offline—at school, for example social media they may turn to online platforms as a way to reaffirm or continue such discourse, especially in spaces where they have the support or reinforcement of their peers (Castellanos et al., 2023).

The emotional effects of hate speech are devastating in both contexts and tend to be cumulative, making the adolescent more likely to be the target or the perpetrator of similar speech in offline contexts, in a kind of emotional transference. In Kowalski et al. (2014), the investigation is focused on an investigation into the emotional effects of cyberbullying, analysing how experiences of online hate speech negatively influence the self-esteem and mental health of adolescents, and may also generate offline hate behaviours; and concluding that adolescents who experience online hate are more likely to develop hostile behaviours offline. A desire for revenge is also associated with a high likelihood of victims becoming perpetrators of hate speech (Ballaschk et al., 2021; Wachs and Wright, 2021), indicating that feelings of frustration and inferiority are positively correlated to the perpetration of hate speech among adolescents (Reichmann et al., 2020).

The internet is an everyday communication tool that has become an environment conducive to the dissemination of hate content.

Incitement to online hatred is part of a social process (Leo and Russo, 2023) in which experiences of hate behaviours are normalised as an everyday reality; understanding of hate behaviour and victimisation as a process allows us to connect associated incidents to subsequent violent conduct (Windisch et al., 2021).

2 Materials and methods

The present study is based on a questionnaire used to collect data in four secondary schools between March and June 2024. The questionnaire can be viewed in the University of Almería repository.

The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board (or Ethics Committee) of Universidad de Almería. Ref: UALBIO2024/025. Approved on 11 July 2024. Informed consent was obtained from all subjects involved in the study. Written informed consent has been obtained from the patient(s) to publish this paper.

A total of 571 adolescents aged between 12 and 19 years old took part in the survey, the educational stage correspond to compulsory secondary education and vocational training. 45.8% of the students surveyed belong to neighbourhoods defined as deprived areas, i.e., neighbourhoods with a low socioeconomic level, combined with high unemployment rates and low educational family level. The survey was approved by the schools' respective administrative councils prior to being conducted. The survey participants responded to the questionnaire in the classroom, in digital format (on laptops or tablets), over a 30-min period. The items of the survey were created *ad hoc*. This was made with the purpose of adapting the survey to the characteristics of the sample and the necessities of the own research; it was made a pilot testing with a sample of 25 students ($N = 25$). The pilot testing let us to adapt the items of the survey and improve the survey in itself. The questionnaire contained a total of 50 items using Likert scale and multiple-choice response options, with questions related to how much time they spent on the internet, which social media networks they used and how, among other questions. The researchers introduced the survey in the presence of teaching staff, explaining that the study had been developed at the university and assuring the participants that the data obtained would remain anonymous.

The data were processed with SPSS statistical software, employing statistical analysis techniques that included binary logistic regression as well as chi-square and omnibus tests of model coefficients to validate the results of the research.

3 Results

As shown in Table 1, nearly 60% of the adolescents surveyed had perpetrated hate speech (HS), both on- and offline. In the offline environment, 77% had seen or heard incidents of in-person incitement to hatred; while 54.1% had been the victim of such incidents at least once, and 6.4% reported having been a frequent victim. In the online environment, 77.3% of the respondents had seen or heard hate speech, while 28.9% reported having been a victim. Hence, while instances of having seen or heard hate speech were reported in almost the same percentage (close to 77%) in both environments, significantly more of the participants reported having been victims of hate speech in person (60.5%) than online (28.9%).

TABLE 1 Study variables.

Variable	Variable categories	Percentage of responses
HS perpetrated, on- and offline	Yes	57.7
	No	42.3
Seen/heard incidents of incitement to hatred in person	Yes	77
	No	23
HS suffered in person	None	39.5
	Occasionally	54.1
	Frequently	6.4
HS seen/heard online in the last 3 months	None	22.7
	Once	12.1
	A couple of times	33.8
	Several times a month	14.3
	Every week	6.8
	Every day	5.2
	Several times a day	5.2
Have you been treated in a hurtful way online in the last 3 months?	No	71.1
	Yes	28.9
Gender	Male	48.9
	Female	51.1

Moreover, and though not shown in the table, both genders reported practically identical percentages of perpetration of hate speech, whether on- or offline, though the percentage of girls that reported perpetrating hate speech was slightly higher than that of the boys (42.2 and 40.6% respectively).

The findings of the present study point to significant associations between online hate speech and in-person social interaction: the statistical correlations indicate that the more hate speech is suffered online, the greater is the incidence of hate speech suffered in person, in close social environments such as schools. In terms of perpetration of hate speech, the correlations indicate a similar progressive pattern: the more hate speech is perpetrated online, the more it is perpetrated in close personal contexts.

In Table 2, we present the correlations among the different study variables. Although all are significant, it is notable that those above 0.3 are those that relate to the online world. Thus, the correlation between having seen hate speech online and having seen hate speech in person is 0.322; and the correlation between perpetrating hate speech, whether on- or offline, and having been a victim of online hate speech is 0.348. At just under 0.3, with a score of 0.297, is the correlation between having witnessed hate speech and having perpetrated hate speech in both contexts.

Finally, we carried out a logistic regression to determine the weight of each of the variables in explaining the perpetration of on- and offline hate speech among adolescents. The following independent variables were introduced: having suffered hate speech in person, having seen or heard instances of hate speech in person, having

suffered hate speech online, and having seen or heard hate speech online. In addition, we introduced gender into the equation.

Our model allowed us to go from an overall percentage of 55.3 to 70.7% affirmative responses, from which we can say that our understanding of the dependent variable is significantly increased. In fact, the Cox and Snell R-squared value of the model is 0.192.

In Table 3, we present the model's principal coefficients, as well as the significance levels for each of the variables.

As can be observed, the four variables help to explain the perpetration of on- and offline hate speech by adolescents. The variable that reaches the highest significance level, with a value of <0.001, is suffering hate speech online. Moreover, the B coefficient is 1.276, revealing the importance of the online world in explaining the perpetration of hate speech, both on- and offline. The coefficient Exp(B) indicates that the probability of an adolescent perpetrating hate speech, online and in person, is 3.58 times greater when they have been a victim of hate speech online.

The seen or heard hate speech in person variable also has a strong association with perpetrating on- and offline hate speech, with coefficients B and Exp(B) of 0.650 and 1.916 respectively, indicating a considerably increased likelihood of hate speech perpetration; And although the significance level in this case is 0.78, the variable shows a certain trend that is worth considering, as it influences the perpetration of hate speech.

The hate speech suffered in person variable, with a significance level of 0.002 and a B coefficient of 0.639, is also important, since an Exp(B) coefficient of 1.89 indicates a moderate likelihood of perpetrating hate speech.

Finally, the hate speech seen or heard online variable, with a significance of <0.001, yields a beta of 0.266, but the probability of 1.305 indicated by the Exp(B) coefficient shows a positive association with the perpetration of hate speech.

4 Discussion

The findings of this study show the relationships between violence inflicted and suffered by the adolescent population in both on- and offline environments. Wright's (2017) theory of the transference of aggression is reinforced by these results when we observe the growing tendency to perpetrate hate speech in both environments, demonstrating the influence of violent behaviours on relationships among the adolescent population, in face-to-face interactions as well as on online social networks.

The data are consistent with those obtained by Bauman and Yoon (2014), evidencing that the more adolescents are witnesses to hate speech, whether face-to-face or offline, the more likely they are to perpetrate it in either context, thus demonstrating the influence of inflicting and suffering violence in both on- and offline environments.

The escalation of violence, proposed by Wright (2017) and defined by Bandura (1975) and Bussey et al. (2015), that replicates attitudes witnessed on- and offline is reflected in this study in the observation of indicators showing that the more hate speech secondary school students see and hear in their environments, the more violence they inflict on other students; generating new forms of violence in school settings and social contexts where these practices are observed. This trend shows similarities with research conducted by Espelage and Holt (2013), in which the transfer and replication of violent behaviour are

TABLE 2 Bivariate correlations between having perpetrated and having witnessed HS on- and offline.

Variable	Statistic	HS perpetrated on- and offline	HS suffered in person	HS seen/heard offline	HS suffered online	HS seen/heard online
HS perpetrated on- and offline	Pearson correlation coefficient	1	0.255*	0.252*	0.348*	0.297*
	Sig. (bilateral)		<0.001	<0.001	<0.001	<0.001
	N	475	393	456	456	451
HS experienced in person	Pearson correlation coefficient	0.255*	1	0.212*	0.193*	0.169*
	Sig. (bilateral)	<0.001		<0.001	<0.001	<0.001
	N	393	440	440	430	428
HS seen/heard offline	Pearson correlation coefficient	0.252*	0.212*	1	0.166*	0.322*
	Sig. (bilateral)	<0.001	<0.001		<0.001	<0.001
	N	456	440	513	499	488
HS suffered online	Pearson correlation coefficient	0.348*	0.193*	0.166*	1	0.215*
	Sig. (bilateral)	<0.001	<0.001	<0.001		<0.001
	N	456	430	499	512	487
HS seen/heard online	Pearson correlation coefficient	0.297*	0.169*	0.322*	0.215*	1
	Sig. (bilateral)	<0.001	<0.001	<0.001	<0.001	
	N	451	428	488	487	503

An asterisk (*) indicates that the Pearson correlation is statistically significant at $p < 0.001$. Bolded values highlight the strongest or most relevant correlations.

TABLE 3 Logistic regression of perpetration of on- and offline hate speech.

Variables	B	Standard error	Wald	gl	Sig.	Exp(B)
HS suffered in person	0.639	0.205	9.655	1	0.002	1.894
HS seen/heard in person	0.650	0.369	3.105	1	0.078	1.916
HS suffered online	1.276	0.266	23.011	1	<0.001	3.581
HS seen/heard online	0.266	0.078	11.738	1	<0.001	1.305
Gender	0.297	0.240	1.540	1	0.215	1.346
Constant	−2.327	0.398	34.187	1	<0.001	0.098

assumed to occur in response to the influence of violence previously witnessed in the contexts.

Perhaps the most significant finding of the present study is that the experience of having suffered hate speech online has an influence on the subsequent perpetration of hate speech, both on- and offline; this is in line with Kowalski et al.'s (2014) theory that adolescents who experience hate online are more likely to develop hostile behaviours.

Online hate speech significantly affects violent behaviour, as shown in Windisch et al. (2021) and, with reference to cyberbullying, in Gómez-Tabares and Correa-Duque (2022). In our study, this effect is observed in the influence of having witnessed or suffered hate speech on the perpetration of hate speech later on.

We conclude by proposing those incidents of hate speech in on- and offline environments have a reciprocal influence on each other,

increasing violence and influencing behaviours in face-to-face social relationships. Hate speech in social media has a clear influence on secondary school students' attitudes in personal relationships in their close social environments; and the transference of aggression between on- and offline environments negatively impacts on the escalation of violence, favouring the increase of negative attitudes. In addition, our study reveals the importance of the online world in explaining the perpetration of hate speech, both on- and offline.

There are some limitations to the study; the medium size of the research sample means that the results may not be representative of the general population, potentially limiting the ability of the findings to be generalised. Research results may be influenced according to the precise moment and social context in which a study is conducted; since these may change over time, the ability of the results to be generalized is restricted. In future, the research sample could

be expanded to enable the results obtained to be applied to a broader population.

Data availability statement

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found in the article/supplementary material.

Ethics statement

The studies involving humans were approved by Comisión de Bioética de la Universidad de Almería (REF: UALBIO2024/025). 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

JC: Conceptualization, Formal analysis, Investigation, Methodology, Project administration, Software, Validation, Visualization, Writing – original draft. PM: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Software, Supervision, Validation, Writing – original draft. JE: Data curation, Investigation, Resources, Validation, Writing – review & editing. LJ: Investigation, Resources, Validation, Writing – review & editing.

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