

Social Support Moderates the Relationship Between Childhood Ostracism and Paraphilic Thoughts

Daniel A Lodge*, Katia C Vione, Dean Fido

Abstract

The relationship between childhood ostracism and experiences of paraphilic thoughts is unclear, with very little known about the subsequent impact of improved social support in later life. This study used mixed methods (i.e., moderation analysis, content analysis) to explore the effects of social support and childhood ostracism on paraphilic thoughts, and further explored individuals' views on people with sexually deviant attitudes and behaviours. Two hundred seventeen participants (mean age = 27.5 years, 63.6% female) responded to an online survey. In men, but not in women, the relationship between childhood experiences of ostracism and paraphilic thoughts was strengthened in individuals with high social support, and weaker in individuals with low social support. The qualitative analysis indicated differences in attitudes of the general population between people who have committed sexual offences and people who have sexually deviant thoughts. Results of this study raise internationally applicable questions about the development of public health support for people with deviant sexual thoughts and attitudes via interventions to help prevent potential sex offences in adulthood, thus, challenging and potentially preventing the cyclical relationship of sexual abuse reviewed in the literature.

Keywords: Childhood Ostracism; Paraphilic; Social Support; Public views; Public Health

Introduction

Sexual violence remains a social problem of global magnitude [1, 2,3]. In England and Wales alone 773,000 adults aged 16 to 74 years were suspected to be victims of sexual assault in the year ending March 2020 [4] with 193,096 sexual offences recorded by police in the year ending June 2023 [5]. Specifically, 1 in 20 children aged between 11 and 17 years in the United Kingdom (UK) are thought to have experienced sexual assault (National Society for the Prevention of Cruelty to Children, 2021), reiterating that this is a pervasive issue.

Sexual paraphilia refers to a persistent sexual interest in anomalous sexual targets such as children [6]; with a specific paraphilic disorder defined under the Diagnostic Manual of Mental Disorders (DSM–5; 45] as an unhealthy or illegal sexual interest, which persists for around six months and which either interferes with an otherwise healthy sex life or which poses a risk of harm to the person or other people [7]. Individuals who act on unhealthy sexual interests in children pursue an array of cognitive interventions once convicted [4], however, individuals with deviant sexual thoughts or attitudes

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who do not commit contact offences are rarely thought to access treatment that could prevent future contact offending [8]. Such individuals may fail to seek help due to feelings of shame and the social stigma surrounding such attitudes, as well as the fear of being ostracized thereafter [9; 10; 8]. Peer rejection and ostracism were features of anti-social behavior and detachment [11], with experiences of ostracism after surviving child sexual abuse frequently reported by victims [12]. In turn, this could contribute to the exertion of control through anti-social means for the gain of self-worth, control, and meaning [13].

Developmental explanations for sexual crime indicate that early onset of anti-social behavior that continues – unchecked – throughout one's life could result in engagement of crimes motivated by sexual behaviours and attitudes [14]. Theoretical models of adolescent sexual offending tend to focus on either criminogenic factors including anti-social behaviours or developmental specialist factors such as previous sexual victimization and social incompetence [15]. Such trajectories could be facilitated by adverse childhood experiences [16]. Poor parent-child attachment and family dysfunction predict sexual offending attitudes as does childhood victim experiences of sexual assault [15]. An individual's attempt to reconcile with such socially adverse relationship patterns could lead to self-determined tolerant attitudes and thoughts towards non-consensual sex to reconcile with the individual's own adverse childhood experiences [2; 17].

Adverse childhood experiences coupled with ostracism can have a profound and debilitating effect on a person's ability to connect with other people and socialize in a complex and connected world; with such communicative problems contributing to emotional, cognitive, and social impairments [18, 3]. Research exploring the complex biopsychosocial process from childhood adverse experiences to adulthood risk taking behaviours has found a somewhat linear way to explain such a complex process. Adopting risk-related behaviours could be considered a coping strategy for those taking such risks [19] as traumatized individuals appear to develop maladaptive relational patterns into adulthood [2]. An absence, or even shortage of appropriate behavioural and emotional regulation models may reinforce the risk-taking thoughts and behaviours that act as adult coping strategies [20]. A continued pattern of risk-taking as coping mechanism can negatively impact relationships with others and thus contribute to a cycle of maladaptive coping mechanisms [21]. Managing dysregulation in coping via risky sexual behavior is therefore rooted in a need for intimacy, control, affection and attention, thus self-soothing distress experienced by the person committing sexual offences [22].

People experiencing risky and deviant sexual thoughts of minors become aware of this in early adolescence [23] and despite wanting help from mental health professionals, the average age in which such support is obtained is 32

years [23]. This suggests that a person is willing to seek intervention from adolescence to avoid committing an offence in adulthood; however, societal barriers result in preventable sexual offences [24] and the resulting trauma [22]. Research exploring the impact of social relationships on unsafe sexual behaviours is sparse, however, a quantitative general linear model on longitudinal data suggested that individuals with higher levels of social support from parents and peers engaged in less frequent risky and unsafe sexual behaviours thus moderated effects on sexual values and behaviours [25]. Regarding females specifically, a more immediate social network of similarly situated persons seems to serve as a helpful buffer against negative attributions of sexual experiences for females [26]. Females have also reported lower paraphilic interests alongside higher levels of self-control and social bonds than males who themselves reported higher levels of risky sexual behavior and paraphilic interests alongside lower levels of social bonds [27].

People committing sex offences suffer stigmatizing effects, as do people who report having paraphilic thoughts and attitudes [28]. Discussion of how society treats people who commit sex offences has suggested the need to incorporate trauma-informed models to help individuals in prison or treatment settings [22]. Early intervention that is trauma-focused is considered essential to reducing sexual offending attitudes and behaviours before potential sex offences are committed [15]. Staff and prisoners at institutions in the UK held positive attitudes and encompassed beliefs that people who commit sexual offences are capable of change [28]. Prisoners' attitudes also showed positive views towards treatment providers and prison staff and evidenced that the surroundings and social support had contributed to positive changes in prisoners themselves [28]. Despite this, there is a lack of research probing the effectiveness of early interventions for individuals experiencing thoughts of risky sexual behaviours who have not committed contact sexual offences.

Regarding public perceptions, we know that in the absence of specific forensic psychology-related education, the public hold punitive judgements of individuals with sexual convictions [29] and those who have committed serious offences more broadly [30]. However, there remains sparse research on public attitudes towards individuals with paraphilic thoughts and attitudes who have not committed contact offences, specifically. Though [31] suggests that anger and disgust drive punitive judgements towards this demographic, there is a clear need for further research to pinpoint exactly what these views are. Questions about accessibility to public health support and socially supportive treatment for people who have thoughts and feelings about sexually risky behaviours and actions, including those who have been victims of adverse childhood experiences and are experiencing ostracism in childhood, remain unanswered.

Current Study

Taken together, this mixed-methods study explores the potential utility of social support as a protective moderator of paraphilic thoughts. Specifically, across both men and women, greater social support was hypothesized to weaken baseline associations between the presence of ostracism during childhood and current paraphilic thoughts. Moreover, it sought to qualitatively delineate public perceptions of those experiencing paraphilic thoughts and their beliefs about this groups' treatment. Implications of this study could further discourse about public health approaches on an international scale and inform on psychological mechanisms and social support programs for individuals experiencing paraphilic thoughts.

Materials and Methods

Participants

For our quantitative component, the target sample size of $n = 218$ was calculated using G*Power with an anticipated small to medium effect size ($f^2 = 0.08$) and power of 0.95. Through opportunistic sampling of individuals aged eighteen years or older who were fluent in English, 236 individuals attempted the online survey distributed through Qualtrics, of which, $n = 217$ (Mage = 27.53 years, SD = 10.88; 63.6% female) completed the survey in full. Demographic data showed the sexual orientation of participants as heterosexual ($n = 160$, 67.5%), gay ($n = 10$, 4.2%), lesbian ($n = 6$, 2.5%), bi-sexual ($n = 29$, 12.2%), pansexual ($n = 13$, 5.5%), asexual ($n = 13$, 5.5%) and other ($n = 6$, 2.5%). Relationship status was reported as single ($n = 116$, 48.9%), being in a new relationship ($n = 17$, 7.2%), being in a long-term relationship ($n = 99$, 41.8%) and other ($n = 5$, 2.1%). Data collection ran between December 20th, 2022, and February 23rd, 2023.

Materials

Demographics

Participants were asked to provide their age, sex, sexual orientation, and relationship status via open text boxes

Ostracism Experience Scale for Adolescents (OES; 41)

The OES comprises eleven items that reflect experiences of ostracism during adolescence. The scale was adapted to reflect a retrospective perspective by changing wording from the present to the past tense. Scale items represent general perceptions of being ostracized; each beginning with the stem "In general, others . . ." followed by wording that reflects manifestations of ostracism (e.g., "...ignored me during conversations"). Responses to each item are made on a 5-point Likert scale (1 = never, 5 = always) with higher scores reflecting higher levels of perceived retrospective ostracism experiences (Cronbach's $\alpha = .70$).

OSLO social support scale (OSSS-3; 55)

The OSSS-3 comprises three items that depict the

presence of current perceived social support (e.g., "How much interest and concern do people show in what you do?"). Response ranges for each item differed with item 1 scored on a 4-point scale from 'none' to '5+', item 2 scored on a 5-point scale from 'none' to 'a lot', and item 3 scored on a 5-point scale from 'very difficult' to 'very easy'. The total score of the three items combined ranges from 3 to 14, with high values indicating more substantial levels of social support (Cronbach's $\alpha = .58$).

Paraphilia Scale [43]

The Paraphilia Scale comprises 40 items which are measured twice from two components. One component measures endorsement of risky sexual thoughts and attitudes (e.g., "You are tying or handcuffing someone") on a 7-point scale from 'Very repulsive (-3)' to 'Very arousing (+3)', with higher scores indicating greater endorsement of said attitudes (Cronbach's $\alpha = .91$). The Paraphilia Scale also measures the 40 items from the component of experiences and arousal (e.g., "You are tying or handcuffing someone") on a 5-point scale: 1 (never), 2 (once or twice ever), 3 (Once a year or more on average), 4 (Once a month or more on average), 5 (Once a week or more on average). In the present study the 40 items were only measured for the endorsement of risky sexual thoughts and attitudes.

Open ended questions.

The survey also included three open-ended questions asking respondents' views on sexual offences, thoughts of paraphilic activities and treatment for people who commit sexual offences and were worded as follows: 1 (Do you think being sexually abused in childhood would impact a person's sexual life? Please write two to three sentences explaining why), 2 (How do you feel people who commit sexual offences should be treated by the public?), 3 (Please write two to three sentences sharing what do you think should happen to people who have sexually deviant thoughts and feelings). In all 3 items, we requested responses to be between 3 to 5 sentences to allow depth within our analysis.

Procedure

The study received ethical approval from a UK-based higher education institution. After clicking the study link and providing informed consent, participants provided demographic details. Next, they were presented with the OES and the OSSS-3, followed by the thoughts and attitudes component of the Paraphilia Scale. Before being debriefed, participants were asked to respond to the three open ended questions described above. On average, the study took 11 minutes to complete.

Analytical strategy

Statistical analyses were performed using IBM SPSS v. 26 alongside the PROCESS macro v4.1 (23). After calculating mean differences (t-tests) and associated effect

sizes of focal variables between sexes, Pearson correlations were computed between the predictor variable (childhood ostracism experience), the dependent variable (paraphilic thoughts), and the moderator variable (social support) across the whole sample and within female and male participants, independently. Next, moderation analysis was used to assess whether social support modified the strength of the relationship between childhood ostracism and paraphilic thoughts in two separate models (males and females). Finally, content analysis was conducted on our qualitative data to explore views on sexually deviant thoughts, attitudes, and offences including attitudes regarding treatment. Text data was analyzed using IRaMuTeq (Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires; Ratinaud, 2009). To facilitate this, text was organized into three corpora, one for each question item, which were then analyzed through Descendant Hierarchical Classification (DHC), similarity analysis, word cloud, and confirmatory factorial analysis (CFA). In this analysis, segments of text (ST) are classified according to their lexicon, based on frequency and χ^2 of words. These segments are then grouped into classes called Elementary Context Units, which organize the STs based on vocabulary similarities within each class and differences in vocabulary between classes. The classes were then analyzed via groupings to provide a graphic representation of the most frequent words, represented by larger font sizes [32].

Results

Data were screened for normality via boxplots and histograms, with no concerns for skewness and kurtosis.

Descriptive Statistics and Sex Differences

Means and standard deviations (SD) were calculated for each variable, with independent samples t-tests conducted to test for sex differences between male and female participants (see Table 1). On average, males reported greater prevalence of paraphilic thoughts with a medium effect size ($t(215) = 3.407, p < .001, d = 0.5$), and females reported greater current social support with a small effect size ($t(215) = -2.218, p = .03, d = 0.3$; Cohen, 1988). There was no statistically significant difference in ostracism between males and females.

Correlations

Bivariate correlations were calculated between ostracism, social support, and paraphilia within male and female

participants, separately (Table 2). The results indicated there was no significant correlation between any of the variables ($p > .05$).

Moderation Analyses

Separate moderation analyses (two) were conducted for male and female participants. In each analysis, childhood ostracism was the predictor variable (X), paraphilic thoughts were the dependent variable (Y), and current social support was the moderator variable (W).

Males

The overall model was not statistically significant $F(3,75) = 2.294, p = .084, R^2 = .10$. Though neither ostracism, $b = 0.892, 95\% \text{ CI } [-0.985, 2.770], t = .947, p = .346$, nor social support significantly predicted paraphilic thoughts and attitudes, $b = 0.570, 95\% \text{ CI } [-2.505, 3.646], t = .369, p = .712$, the (mean-centered) ostracism by social support interaction term was significant ($\Delta R^2 = .0978, \Delta F(1,75) = .369, p = .012$; Figure 1.). Unexpectedly, relationships between childhood experiences of ostracism and paraphilic thoughts were strengthened in individuals with high social support and weakened in individuals with low social support.

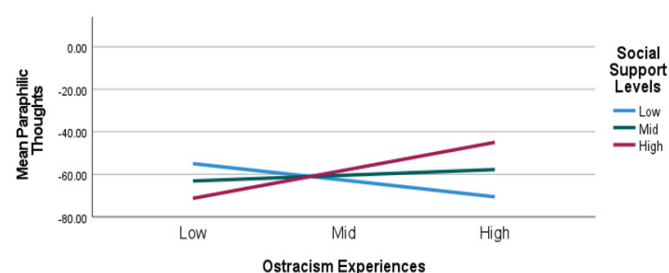


Figure 1: Simple slopes analysis showing the interaction of childhood ostracism experiences and social support on paraphilic thoughts and attitudes in males.

Females

The overall model was not statistically significant $F(3,134) = 1.858, p = .139, R^2 = .03$. Neither ostracism, $b = 0.951, 95\% \text{ CI } [-.2447, 2.148], t = 1.573, p = .118$, nor social support, $b = -1.355, 95\% \text{ CI } [-3.3089, .5977], t = -1.372, p = .172$, nor the (mean-centered) interaction thereof, $b = .186, 95\% \text{ CI } [-.2426, .6149], t = .8585, p = .392$, significantly predict any variation in paraphilic thoughts and attitudes.

Table 1: Means, standard deviations, male & female differences and effect sizes for ostracism, social support, and paraphilic thoughts.

Variable	Mean (SD) Total	Mean (SD) Males	Mean (SD) Females	Sex Differences (t-test)	d
Ostracism	32.60 (3.98)	32.06 (4.26)	32.91 (3.79)	-1.5	0.2
Social Support	9.25 (2.40)	8.78 (2.51)	9.52 (2.29)	-2.21*	0.3
Paraphilia	-68.51 (28.6)	-59.97(34.60)	-73.40 (23.30)	3.41**	0.5

Note. * $p < .05$, ** $p < .001$, d = Cohen's d effect size.

Table 2: Pearson correlations between variables within males and females (Males = 79; Females = 138).

	1	2	3
[1] Ostracism	-	0.058	0.048
[2] Social Support	0.038	-	0.041
[3] Paraphilia	0.122	-0.128	-

Note. Male correlations are above the diagonal dashes, female correlations are below the diagonal dashes.



Figure 2a: Word Cloud for Item 1.



Figure 2b: Word Cloud for Item 2.



Figure 2c: Word Cloud for Item 3.

Content analysis

This content analysis is divided into three; separating the corpus based on three open-ended questions exploring perceptions of [1] sexual abuse in childhood, [2] how people who commit sexual offences should be treated, and [3] what should happen to people who experience paraphilic thoughts and feelings.

Item 1 – Do you think being sexually abused in childhood would impact a person’s sexual life? and why?

Corpus 1 contained 231 answers. The DHC analyzed 251 segments of text, of which, 53.78% were utilized to form the classes. Class 1 grouped 34.1% of the text segments and was labelled “Lifelong impact of abuse”; class 2 grouped 24.4% of the text segments and was labelled “Trust and intimacy effects”; class 3 grouped 41.5% of text segments and was labelled “Resulting trauma”. An example of extract of each class is presented in Table 3. Supplementary file 2 (https://osf.io/k3ehv/?view_only=957aa9384c5c4cd081c714e43871ac98) shows the three identified classes, words in each class, chi-square values, and frequency of each word with the most frequent word in each class being ‘abuse’, ‘view’, and ‘traumatic’, respectively. The word cloud (Figure 2a) provides a graphical representation of the most frequent words for this question item. The action being discussed, and words associated to whom the actions were against were frequently mentioned alongside the words ‘feel’, ‘trust’, ‘trauma’, ‘life’, and ‘relationship’. These words were typically mentioned in the sense that the experience of sexual abuse in adolescence could lead to a lifetime of difficulties in experiencing healthy relationships and having difficulties with sexual experiences.

Item 2 – How do you feel people who commit sexual offences should be treated by the public?

Corpus contained 221 answers. The DHC analyzed 233 segments of text, of which, 68.24% were utilized to form the classes. Class 1 grouped 27% of the text segments and was labelled “Commitment to the offence”; Class 2 grouped 15.1% of the text segments and was labelled “Criminal justice”; Class 3, labelled “Punishment”, grouped 20.8% of text segments; Class 4 grouped 17.6% of text segments and was labelled “Ostracism of offender” and Class 5 grouped 19.5% of text segments and was labelled “Nature of the crime”. An example of an extract of each class is presented in Table 4. Supplementary file 2 (https://osf.io/k3ehv/?view_only=957aa9384c5c4cd081c714e43871ac98) shows the five identified classes, words in each class, chi-square values, and frequency of each word. The most frequent words in each class, respectively, were commit, rehabilitate, serve, treatment and depend.

The word cloud (Figure 2b) provides a graphical representation of the most frequent words for this question

Table 3: Representative extracts of each class for Item 1: Do you think being sexually abused in childhood would impact a person's sexual life? and why?

Class 1 Lifelong impact of abuse	"yes because all the people I know who have been sexually abused in childhood have also reported effects on their adult sex life I feel like it would impact their ability to feel safe during sexual acts and reduce their ability to relax" "could cause the abused person to not want to engage in sexual relations activity impacting upon relationships or can leave them with long term trauma that causes them issues in life"
Class 2 Trust and intimacy effects	"maybe it could influence trust in another in vulnerable situations it could create an abnormal view of what normal is it could become a negative experience and one not wanted to be repeated even in a loving environment" "yes because it will change how they view others and their experiences and will lead to less trust in others and maybe thinking they are an outcast or are different"
Class 3 Resulting trauma	"absolutely I know so many people who were assaulted as children and it has led to a lot of trauma PTSD [post-traumatic stress disorder] and issues with trusting people it's one of the most horrendous things you could ever do to someone" "I think it could impact and may frequently impact a person's sexual life sexual abuse is a traumatic experience and traumatic experiences often have lasting consequences especially in areas related to the type of trauma experienced"

Table 4: Representative extracts of each class for Item 2: How do you feel people who commit sexual offences should be treated by the public?

Class 1 Commitment to the offence	"they should be treated poorly because there is no excuse for committing sexual offences." "once you commit a sexual offence you should be considered irredeemable until there is very strong evidence to prove otherwise if you never got help before deciding to go to that length you should face strong precautions and consequences" "honestly it depends on the circumstance i don't feel as though the public should shun them as sometimes they have committed sexual offenses without prior knowledge for example if a teenager looks older and lies about their age however if the offense was pre mediated for example rape"
Class 2 Criminal Justice	"these people should be jailed and rehabilitated with the aim that they never repeat the offence" "in accordance with the current justice system they should be shunned and generally embarrassed by the public for a proportionate length of time serious devious offenders may need to be mistreated unless they are able to change." "they should not be treated the same they have chosen to violate someone's body so they should not be given the same opportunities as others and treated as criminals"
Class 3 Punishment	"should be put in prison and serve a long sentence my faith does not allow this and aligns with my personal beliefs as individuals that commit this type of crime should be dealt and receive a cruel punishment." "i don't care if most people believe the punishment is severe but recurrent sexual offenders and pedophiles should be chemically castrated, one time offenders should be given opportunity to rehabilitate while prevented from being near schools etc" "it may sound a very drastic opinion but sex offenders should be chemically castrated"
Class 4 Ostracism of offender	"they should be shamed and imprisoned for a long time put on sex offender lists which should disallow them from gaining certain jobs etc" "they shouldn't be in public if they get released they should not be allowed into the general population" "the sex offenders should be banned forever by society they shouldn't be allowed to join our society"
Class 5 Nature of the crime	"sexual crimes vary vastly and each crime is different my thoughts on child sexual offences and how the public should treat them is greatly different to someone who has fondled another adult inappropriately i would expect negative views from the public generally" "honestly it depends on the circumstance i don't feel as though the public should shun them as sometimes they have committed sexual offenses without prior knowledge for example if a teenager looks older and lies about their age however if the offense was pre mediated for example rape"

item. Words associated to whom sexual offences are committed against were frequently mentioned alongside references to the labelling of the action and the response required to manage the type of offence including the words public, person, commit, sexual, offence, offender, prison, punishment, rehabilitate, treat and society. These words were typically mentioned in the sense of the specific nature of the offence warranting a more punitive approach from the general society and the criminal justice system.

Item 3 – What do you think should happen to people who have sexually deviant thoughts and feelings?

The corpus analyzed contained 220 answers. The DHC analyzed 239 segments of text, of which, 58.58% were utilized to form the classes. Class 1 grouped 47.14% of the text segments and was labelled "Cautious empathetic understanding"; class 2 grouped 52.86% of the text segments and was labelled "Professional support and rehabilitation". An example of extract of each class is presented in Table

Table 5: Representative extracts of each class for Item 3: What do you think should happen to people who have sexually deviant thoughts and feelings?

Class 1 Cautious empathetic understanding	<p>"as long as they don't hurt themselves or others without consent i think it is fine to have sexually deviant thoughts feelings it becomes a problem when they act on them without consent and with the intent to harm others when others do not want it"</p> <p>"well in general sometimes people struggle to control thoughts and feelings even if they're sexually deviant furthermore someone may have thoughts and feelings that are sexually deviant but will not act upon them"</p> <p>"thoughts and feelings are different to a person's actions as long as they are thoughts and feelings that are fine but to act upon it is wrong in this manner discussed"</p>
Class 2 Professional support and rehabilitation	<p>"they should have access to professional help to get them to understand why their behavior is not normal and have guidance around the area"</p> <p>"provided they haven't acted upon it there should be someone they can go to for support and help reducing these feelings and education around the harm that can come if they are acted upon"</p> <p>"instead they should have an accessible support network where they can discuss these without fear of shame ultimately i think if the normalization of these conversations and access to help early on were available sexual offences would be less likely to occur"</p> <p>"i think that they need help mentally such as therapy if the person has not acted on their thoughts then there is still time to teach the individual how to control their thoughts"</p>

5. Supplementary file 2 (https://osf.io/k3ehv/?view_only=957aa9384c5c4cd081c714e43871ac98) shows the two identified classes, words in each class, chi-square values, and frequency of each word. The most frequent word in each class, respectively, were person and professional.

The word cloud (Figure 2c) provides a graphical representation of the most frequent words for this question item. The response to the thoughts and feeling being discussed, and words associated to the type of response suggested were frequently mentioned alongside the words thought, feelings, person, act, therapy, seek and professional. These words were typically mentioned in the sense that the people experiencing thoughts and feeling of a sexually deviant nature should receive help and therapeutic treatment and support from a professional service provider.

Discussion

Overview of key findings

Primarily, this study explored whether current levels of social support moderated the hypothesized relationship between childhood experiences of ostracism and current self-reported paraphilic thoughts and attitudes. On average, males reported both greater current social support and paraphilic thoughts and attitudes than females, with no significant differences in childhood experiences of ostracism between sexes. Unexpectedly, there was no relationship between ostracism and paraphilic thoughts across the whole sample, but in males, we did identify a significant moderation effect of social support. Here – and again, unexpectedly - individuals with higher levels of social support reported stronger relationships between childhood ostracism and paraphilic thoughts and attitudes. Secondly, the study explored public perceptions of people experiencing paraphilic thoughts and attitudes. Punitive judgements towards people who commit sex offences were generally present within our sample, with the caveat that more empathetic views and support-oriented

attitudes were directed towards people with paraphilic thoughts and attitudes that had not committed contact offences, with participants emphasizing beliefs pertaining to their treatability.

Interpretation of Findings

Across both men and women, greater social support was hypothesized to weaken associations between the presence of ostracism during childhood and current paraphilic thoughts and attitudes. Our results did not find this, and despite us identifying a moderating effect in the male moderator analysis, this must be interpreted with caution. The pattern of results for females in this study is in line with previous literature. Females generally scored high on social support and shared little difference in ostracism scores when compared with males in this study; supporting findings in [33].

In males, but not females, childhood ostracism and adulthood social support unexpectedly interacted with greater levels of social support strengthening the relationship between childhood ostracism and current experiences of paraphilic thoughts and attitudes. One interpretation of this result could be that males within our sample were more willing to convey their paraphilic thoughts and attitudes towards minors as a partial result of experiencing social support that moderated how they viewed their sexual values and attitudes. This would support findings [34] which found disclosure of paraphilic thoughts and attitudes, although linked to shame, were also related to experiences of pride and engagement in communities that allowed open and active discourse specific to their paraphilic interests. A competing hypothesis is that males within our sample who had paraphilic thoughts and attitudes towards minors may have not been as forthcoming with us. [34] notes that disclosures of paraphilic interests were more likely given to allies and online community friends rather than family, health professionals, or researchers, who were seen as a risk factor for shame and stigma. This was

not accounted for in the present study; thus, it is unclear if these factors influenced disclosure of paraphilic thoughts and attitudes in our study. Finally, we also note the disparity in the number of males (36.4%) in our study, which might also have contributed to the lack of direct significant effects between social support, childhood ostracism, and paraphilic thoughts and attitudes.

The present study used childhood experiences of ostracism as a predictor variable due to the limited research on this variable as a predictor for paraphilia. Considering the ambiguity of the outcome it is suggested that future research could investigate ostracism as a variable specifically in connection with adverse childhood experiences of sexual abuse. Mapping on to the cyclical nature of sexual abuse experiences and paraphilic thoughts and attitudes [35, 2, 17], investigation into whether adverse childhood experiences cause affective ostracism experiences and whether social support moderates this could build upon this present work.

We also drew upon open-ended questions to explore the general population's feelings and thoughts on the acts of sexual offences, victims of sexual offences and paraphilic thoughts and attitudes of non-offending individuals. The content analysis presented meaningful findings regarding empathic views towards treatment for people with paraphilic thoughts and attitudes compared to more punitive views and attitudes for individuals who had committed contact offences. Responses to item 1 highlighted that victims of sexual offences suffer a wide array of lifelong issues, including trauma and difficulties maintaining healthy social and sexual relationships. Respondents also expressed that such childhood experiences could potentially lead a person to act out their abusive childhood experiences in future scenarios in adulthood, supporting findings in [35] The views expressed by respondents, some of whom unanticipatedly shared their own victim experiences, also support [18,2] who suggest victims of childhood sexual abuse can struggle with developing healthy emotional, cognitive, and social relationships.

Across item 2, participants were asked how they felt people who commit sexual offences more broadly should be treated by the public, and respondents significantly suggested the need for harsh punishments and described how individuals who commit sexual offences should be kept away from the general population. Terms such as 'shamed', 'banned forever' and 'shunned and generally embarrassed by the public' support the punitive language discussed in [31] showing that such beliefs are shared across cultures in the UK and internationally. Furthermore, such terminology mirrors similar socially abstract rhetoric and language used by the media to demonize and ostracize people with paraphilic attitudes and behaviors [11]. Further investigation through qualitative interviews with practitioners, academics, and media members [36] found different competing definitions and terminology surrounding paraphilic attitudes and behaviors

that are not reflective of the issue's complexity and are far removed from the realities of individuals who experience paraphilic thoughts and attitudes. In the responses for item 2 in this study, generally, attitudes towards those individuals who have already committed crimes of a sexual nature did not appear to consider the personalized reasons for individuals taking part in paraphilic behaviors. Responses seemed to lack a clear understanding of the complexity of this subject, focusing only on the criminal aspect. Thus, participants used socially abstract terms to describe how they would punish and limit the rights of those who have committed these acts, also seen in [36]

The third item focused on individuals with thoughts and attitudes of a sexually deviant nature who had not committed a crime. Findings suggested empathetic attitudes and compassion, including comments indicating individuals with sexually deviant thoughts and attitudes should have access to 'support', 'therapy' or 'treatment' to avoid committing a criminal offence or causing harm to children or other adults. The data showed a dominant view that it was acceptable for a person to have thoughts of a sexually deviant nature so long as no harm was caused to any other individual because of such thoughts and attitudes. The participants' focus on therapy or treatment as a response to sexually deviant thoughts supports findings from O'Neil and Morgan (2010), wherein surface-level biological understanding of ones' sexual interests can be articulated by the general public. Such explanations also extended to an individual's sexual interest in children and alluded to their brains being treated or altered to avoid criminal acts being carried out (O'Neil & Morgan, 2010). An alternative explanation could be that the general population view sexual orientation towards minors as a mental illness requiring mental health treatment and support [31, 28] report that people believe individuals with paraphilic thoughts and attitudes can change their behaviors with the proper support and treatment. Responses including 'they should have an accessible support network where they can discuss these without fear of shame' suggest that respondents consider the shame and stigma surrounding such sexual etiological issues and how hostile environmental and social distinctions act as societal barriers to support [24]. Respondent's views on item 3 further suggest that the general population can accept that individuals experiencing sexually deviant thoughts and attitudes should have a space where they are free of stigma and shame, thus treating them as individuals with separate psychic identities [37] that are to be understood and perceived as experiencing a sexual attraction [38] despite acknowledged lower levels of public support.

Limitations

Results of this study should be discussed within the context of study-specific limitations. First, all responses were self-reported and thus vulnerable to social desirability [39]. Generally, shame and stigma negatively impact the reporting

of paraphilia and associated help-seeking behavior [9; 10; 8], and despite participants of this research being assured anonymity, the un-measured role of perceived stigma may have impacted our data. Second, our general population sample largely reported being heterosexual and so, in line with [40], might have elicited lower paraphilia scores at baseline related to a reduced willingness to accurately answer sexuality-related questions and being less sexually liberal. Third, the self-report ostracism scale used was developed exclusively for use with adolescents in high school settings [41]. With no alternative options, we adapted this scale to index retrospective experiences of childhood ostracism; reliant on memories and interpretation through the lens of adulthood. Such memories could be inaccurate or false [42, 43]. Though supported through internal reliability testing in this study, not only do our ostracism centered quantitative findings require replication, but they would also benefit from qualitative expansion amongst adults who experience paraphilic attitudes to better understand the nuances of ostracism experiences during childhood. Fourth, the OSSS-3 used to measure current social support yielded low internal reliability within our sample, which may have impacted the interpretation of our data. Specifically, one such item asks, 'How easy is it to get practical help from neighbors if you should need it?', which may not reflect contemporary sources of social support applicable or important to our participants. The development of a robust social support scale that has more reach into social support features directly referencing paraphilic thoughts and attitudes may help avoid such a scenario in future research.

Conclusion

Despite little support being available for individuals with paraphilic thoughts and attitudes, social stigma remains a significant barrier for accessing support. Our findings suggested that in men, but not women, greater levels of social support might strengthen baseline relationships between childhood ostracism and experiencing paraphilic thoughts and attitudes. Moreover, we suggest a shift in attitudes towards people with sexually deviant thoughts and attitudes, with the general population indicating empathetic views, using supportive language, and suggesting therapeutic benefit for this group. Together, this study raises questions about the development of public health policy on an international scale for people with deviant sexual thoughts and attitudes to help prevent contact offences being committed in adulthood.

Declaration of Competing Interests

The author(s) declare no potential competing interests with respect to the research, authorship, and/or publication of this article.

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