Early Maladaptive Schemas in Sex Offenders and Non-Sexual Violent Offenders: A Systematic Review

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Abstract

Sex offenders and non-sexual violent offenders display distinct cognitive distortions that shape their offenses. Some evidence suggests that early maladaptive schemas which reflect individuals' fundamental cognitions and beliefs, contribute to these cognitive distortions. However, these have not been systematically appraised. We conducted a systematic review to synthesize the evidence regarding the schema profiles of sex offenders and non-sexual violent offenders, and to explore differences in schemas between these offender types. Eight studies met the inclusion criteria. Within the sex offender category, rapists and child sex offenders endorsed similar schemas. For non-sexual violent offenders, schemas related to self-control issues and self-entitlement were most prominent. Sex offenders demonstrated more schemas that endorsed negative perceptions of themselves and others than violent offenders. Findings also suggest that atypical sexual interests and mental disorders may be important. This evidence highlights the need for a more fine-tuned understanding of the cognitive profiles of sexual and non-sexual violent offenders and for developing schema-based offender management and rehabilitation services.

Keywords Early maladaptive schemas · Sex offenders · Violent offenders · Cognitive schemas · Child sex offenders · Non-sexual violent offenders

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Introduction

Sex offenses refer to acts of sexual nature that are intentionally forced upon non-consenting individuals or those who are incapable of consenting (e.g., people with certain disabilities and mental health conditions, children, and animals). These offenses include - but are not limited to - rape, stalking and harassment, child sexual abuse, and exploitation (Seto, 2017; Terry, 2017). Non-sexual violent offenses refer more broadly to behaviors ranging from minor or severe physical injuries to individuals (Polaschek, 2019). In England and Wales, The Crime Prosecution Service classifies (non-sexual) violent crimes into five main categories: (1) murder and manslaughter, (2) assault, (3) firearms offenses, (4) use of offensive weapons, and (5) robbery (Crown Prosecution Service, 2022). Sex offenses are often committed in conjunction with violent offenses that involve aggression, physical injury, and psychological stress (Terry, 2017). Both sex offenses and non-sexual violent offenses are prosecuted taking into consideration factors such as injury and psychological stress imposed on victims, as well as factors related to the perpetrator, such as mental capacity or mental health problems (Crown Prosecution Service, 2022; Polaschek, 2019).

In forensic settings, a stream of research has developed exploring the psychological underpinnings of sexual and non-sexual violent offending. However, developing distinct profiles of subtypes of offenders is complicated since different types of such offenders target different types of victims (e.g., adults, children), use different methods (e.g., harassment, rape, use of sexual exploitation materials), and may have different motivations (e.g., sexual arousal, misogyny, control, general antisocial attitudes). Among sex offenders and non-sexual violent offenders, some evidence suggests there may be a divergence in psychological profiles. For instance, while rapists and non-sexual violent offenders are more aggressive and hostile (Simons et al., 2008; Ward et al., 1996; Shechory & Ben-David, 2005), child sex offenders tend to have difficulties such as diminished self-esteem, intimacy problems, and insecure attachment (Whitaker et al., 2008; Shechory & Ben-David, 2005; Ward et al., 1996, 1997). In keeping with this, other studies have shown that rapists and non-sexual violent offenders are more likely to use direct or indirect aggressive acts (e.g., assault, negativity, verbal hostility) than child sex offenders (Shechory & Ben-David, 2005; Simons et al., 2008).

Cognitive distortions – habitual ways of thinking that are often inaccurate and negatively biased – can play a major role in both sexual and non-sexual violent offenses (Smallbone & Milne, 2000; Firestone et al., 2005; Simons, 2015; Helmond et al., 2014). For example, child sex offenders tend to perceive children as sexual beings and their urges as uncontrollable (Ward & Keenan, 1999; Whitaker et al., 2008). Rapists tend to blame their victims and possess distorted perceptions of sex roles and women (Ó Ciardha, 2011; Polaschek et al., 1997; Simons, 2015). For non-sexual violent offenders, certain cognitive distortions are also associated with their aggressive behaviors. Hostile attributions and self-entitlement have been specifically demonstrated to foster greater aggressive interpretations of others' behaviors, resulting in violent behaviors (James & Seager, 2006; Seager, 2005; Simourd & Mamuza, 2000). A meta-analytic study demonstrated a large effect for the relationship between

a range of violence-related cognitive distortions and violence in non-sexual violent offender populations ($d=0.82$, $p<.05$; Chereji et al., 2012).

One potential contributory factor to these cognitive distortions in sex offenders and non-sexual violent offenders may be early maladaptive schemas. Early maladaptive schemas represent individuals' cognitive patterns and fundamental beliefs that shape their behaviors and interactions with others from early in life (Young et al., 2003). Eighteen schemas have been described, all of which relate to distorted or rigid perceptions of self, others, and the world (See Table 1; Keulen-de Vos et al., 2013; Young et al., 2003). These schemas emerge during childhood or adolescence and continue into adulthood as a product of the interaction among individuals' childhood environment (Mason et al., 2005) and attachment-related experiences (Gay et al., 2013), as well as their temperaments (Young et al., 2003). These schemas were found to be associated with cognitive distortions in the cognitive-behavioral therapy framework such as "All or none thinking", "Overgeneralization" (Lorzangeneh & Issazadegan, 2022), and rape-related cognitive distortions (e.g., rape justification; Sigre-Leirós et al., 2015b). Hence, early maladaptive schemas may provide a framework to understand the developmental and psychological trajectories of sex offenders and non-sexual violent offenders.

Several previous studies have suggested differences in schema profiles among sex offenders (i.e., child sex offenders, and rapists) as well as among non-sexual violent offenders (Chakhssi et al., 2013; Carvalho & Nobre, 2014; Sigre-Leirós et al., 2015a; Woodcock, 2015; Dunne et al., 2018; Gilbert et al., 2013). For instance, it was revealed that child sex offenders endorsed the pessimism schema significantly more than rapists (Carvalho & Nobre, 2014). For non-sexual violent offenders, it was found that insufficient self-control schema was associated with their history of aggression (Dunne et al., 2018). To date, however, no study has systematically reviewed this literature. Hence, we conducted a systematic review that explored early maladaptive schemas in sex offenders and non-sexual violent offenders. The primary aim of this review was to synthesize the schema profiles of various subtypes of sex offenders and non-sexual violent offenders from existing studies. The secondary aim was the identification of differences in early maladaptive schema between various subtypes of sex offenders and non-sexual violent offenders.

Methods

Search Protocol

To search for studies that examined early maladaptive schemas in sexual and non-sexual violent offending, the preferred reporting items for systematic reviews and meta-analyses (PRISMA; Liberati et al., 2009; See Fig. 1) were used. Electronic databases of peer-reviewed literature - EthoS, Medline, Web of Knowledge, ProQuest Dissertations & Theses Global, OpenGrey, PsychINFO Grey Literature Report, PsychArticles, DART-Europe, and Google Scholar - were examined according to the PRISMA protocol. Further, grey literature (e.g., non-peer-reviewed articles, doctoral dissertations, and master's theses) between 2003 and July 2022 were also reviewed.

Table 1 Schema domains, early maladaptive schemas, and their descriptions

Schema Domain	Early Maladaptive Schema	Description
Disconnection and Rejection	Abandonment/Instability	Perceived instability or unreliability of available individuals for their support and connection.
	Mistrust/Abuse	The expectation that others will hurt, abuse, humiliate, cheat, lie, manipulate, or take advantage of that individual, often avoids connection.
	Emotional Deprivation	The expectation that one's desire for a normal degree of emotional support will not be adequately met by others.
	Defectiveness/Shame	The belief that one is inherently defective, unwanted, inferior and one would be unlovable to significant others if their flaws were to be exposed.
	Social Isolation	The belief that one is disbanded from the rest of the world, feelings of difference from others, and/or being unable to take part in a community or a group.
Impaired Limits	Entitlement/Grandiosity	The belief that one is superior and inherently entitled to special rights and privileges or one is not bounded by reciprocity in regular social interactions.
	Insufficient Self-Control/ Self-Discipline	Pervasive difficulty or refusal to implement sufficient self-control and marked by frustration if there is intolerance to achieve one's personal goals and attempt to restrain one's own emotions.
Other directedness	Subjugation	Excessive surrendering of control to other people because one fears abandonment, anger and/or retaliation by others.
	Self-Sacrifice	The belief that one should exercise pleasing others' needs and wishes at the expense of one's own needs.
	Approval-Seeking/ Recognition-Seeking	Excessive importance on gaining approval, recognition, or attention from others or on fitting in at the expense of their true sense of self.
Impaired Autonomy and Performance	Dependence/Incompetence	The belief that one is unable to handle everyday responsibilities successfully, without needing the help of others.
	Vulnerability to Harm or Illness	Exaggerated fear that a catastrophe will happen at any time and that one is unable to prevent it from happening.
	Enmeshment/Undeveloped Self	Excessive emotional investment and closeness with significant others (especially parents) at the expense of full individuation or social development
	Failure	The persistent belief that one will inevitably fail, or is inherently inadequate compared to others in various areas of achievement (school, career, etc.).

Table 1 (continued)

Schema Domain	Early Maladaptive Schema	Description
Overvigilance and Inhibition	Negativity/Pessimism	Pervasive focus on the negative aspects of life (pain, death, loss, etc.) while disregarding or minimizing the positive aspects of life.
	Emotional Inhibition	Consistent suppression of spontaneous action, feeling, or communication, usually to eliminate disapproval by others, feelings of shame, or losing control of themselves.
	Unrelenting Standards/Hyper-criticalness	Emphasis on internalized high standards while judging themselves, and others. Increased sense of pressure on themselves and overly critical of others.
	Punitiveness	The belief that people should be harshly punished for making mistakes. Marked by extreme anger, frustration, and impatience with others (including oneself).

The year 2003 was selected as a starting point because the first systematic explanation of early maladaptive schemas was discussed by Young et al. in 2003 (Young et al., 2003). Authors developed a list of key items related to the review questions which included variants and combinations of (Category A) "early maladaptive schema", "maladaptive schema", and (Category B) "violent offen*," "sex* offen*," "rape," "rapist*", "child sex* offen*" "sexual murder,". HT and KS matched Category A words with Category B keywords by the "AND" operation in selected databases.

Inclusion and Exclusion Criteria

The screening process entailed several criteria related to sex offenders and non-sexual violent offenders' victim type, demographics and study design (see Table 2). These criteria were based on six levels: population, exposure, comparators, outcomes, study design, and type of paper in line with the Population, Intervention or Exposure, Comparator, and Outcome (PICO) Framework (Schardt et al., 2007). The sampling population was determined to include adults (aged over 18) who had a history of sexual or non-sexual violent offenses, whereas adolescent sexual or non-sexual violent offense perpetrators were excluded due to various potentially confounding variables of developmental trajectories. The exposure criterion was determined to be the assessment of early maladaptive schemas (first- and second-order classification) whereas schema therapy-based interventions and other types of therapeutic interventions were excluded from the search criteria. For the comparator criterion, studies could have included all types of sexual and non-sexual violent offenders alongside non-offending samples while those that incorporated adolescent sex offenders in a comparison analysis were excluded from the review. The outcome criterion included measurements of early maladaptive schemas, history of aggression, and trait anger while treatment outcomes of various types of intervention strategies were excluded based
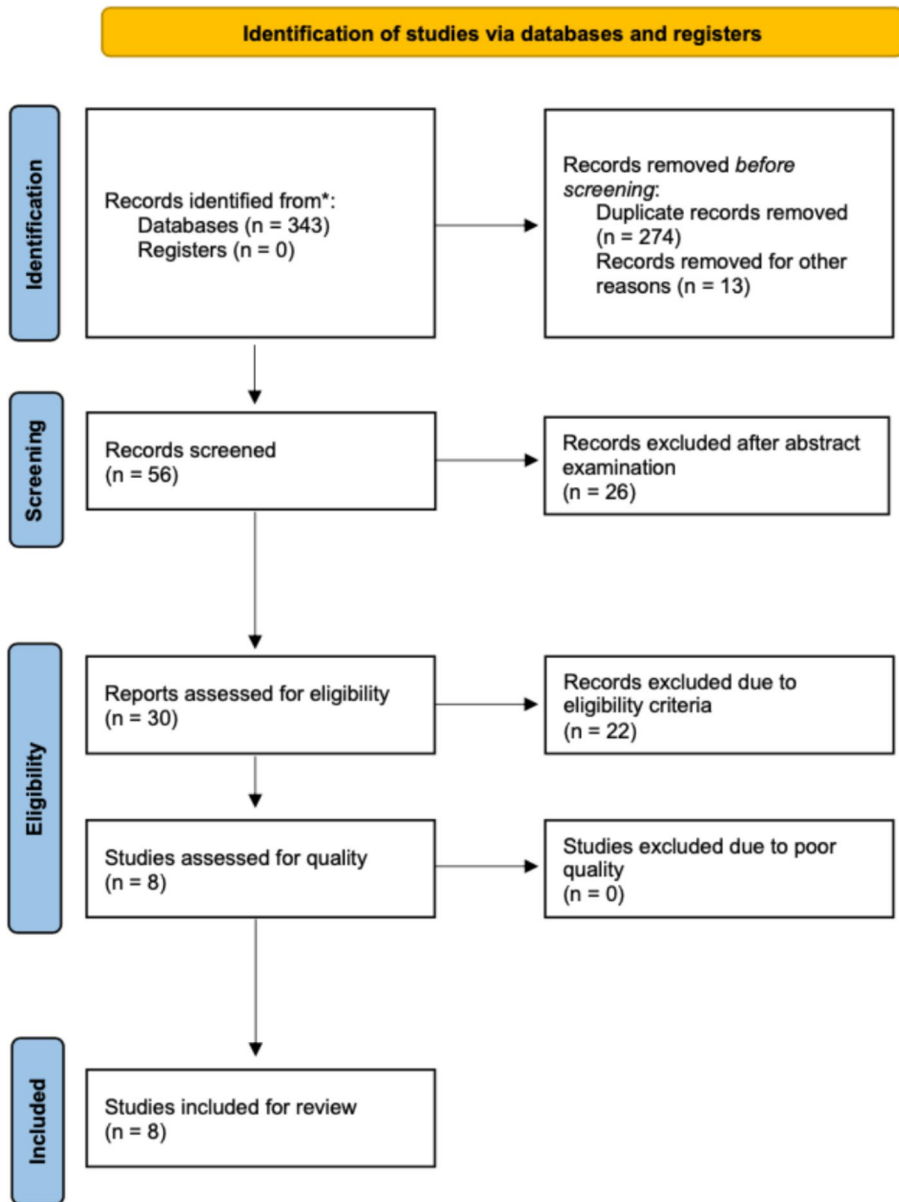
Identification of studies via databases and registers

Identification

Records identified from*:
Databases (n = 343)
Registers (n = 0)

→

Records removed *before screening*:
  Duplicate records removed
  (n = 274)
  Records removed for other
  reasons (n = 13)

Screening

Records screened
(n = 56)

→

Records excluded after abstract
examination
(n = 26)

Eligibility

Reports assessed for eligibility
(n = 30)

→

Records excluded due to
eligibility criteria
(n = 22)

Studies assessed for quality
(n = 8)

→

Studies excluded due to poor
quality
(n = 0)

Included

Studies included for review
(n = 8)

Fig. 1 PRISMA diagram

on relevance to the review aims. Cross-sectional, cohort, and longitudinal designs were included whereas any kind of experimental study (i.e., pre- or quasi-experimental, and true experimental) was discarded. Published and unpublished doctoral dissertations and master's theses, peer-reviewed journal articles, and organizational reports in English were all included. In contrast, non-English papers, book reviews, literature reviews, and book chapters were excluded.

Table 2 Inclusion/exclusion criteria (PICO)

PICO	Inclusion Criteria	Exclusion Criteria
Population	Non-sexual violent offenders, Sex offenders: child sex offenders, rapists, adult sex offenders.	Adolescent sexual offenders, student samples
Intervention/Exposure	Assessment of early maladaptive schemas	Schema therapy-based interventions, any other kind of intervention strategies
Comparator	Sex offenders with child and adult victims, rapists, non-offending samples, and non-sexual violent offenders.	Adolescent sex offenders
Outcomes	Prevalence of early maladaptive schemas., history of aggression, trait anger	Treatment outcomes, psychological resilience
Study design	Quantitative studies; cross-sectional, cohort, and longitudinal studies.	Experimental studies; quasi-experimental studies; qualitative studies.
Other factors	Language of publication: English Type of work: peer-reviewed journal articles, organizational reports, published and unpublished doctoral dissertations and master's theses.	Non-English publications Type of work: Reviews, commentaries, editorials, and other types of opinion papers

Study Selection

The PRISMA guidelines were followed to outline the study selection process (see Fig. 1). The initial search yielded 343 articles. After the removal of non-English papers, duplicates, and title and abstract examinations, 30 papers were deemed eligible for consideration based on the inclusion and exclusion criteria. Authors were contacted when more information was required to establish the inclusion or exclusion of the sampled studies. Studies that did not meet the inclusion/exclusion criteria were digitally tagged as unselected. 22 papers were excluded based on the pre-established criteria. The remaining eight papers were assessed for quality and the qualities of these studies were considered adequate. Hence, the eight studies comprised the final studies that were included in this review and were stored in a separate digital folder to be processed for data extraction. The search and elimination processes were repeated by a second reviewer (KS), based on abstract and full papers. Upon completion, two search results were compared and several studies were determined to be included. In

the case of disagreements, the supervising reviewer (EN) decided on the inclusion or exclusion of these studies.

Data Extraction

Information related to domains of study design, population characteristics, location, outcomes, measures, outcomes and measures, and study findings were highlighted in different colors. Then, highlighted information was digitally tagged with the corresponding domain. For example, information about demographic information (e.g., gender, age) of the sample was highlighted in blue and tagged with 'sample characteristics'. For any missing information, the corresponding author of the article in question was contacted to seek clarification. For only one study (i.e., Efrati et al., 2019), the corresponding author was conducted to get clarification concerning the type of sex offenses committed by the participants in the study. All the information related to authors, study designs, locations, populations, outcomes, and measures was tabulated for each study with a summary of findings (See Table 3).

Assessment of Study Quality

Studies were assessed using separate checklists for cross-sectional and cohort studies after the data extraction process. In line with Cochrane criteria for assessing the risk of bias in non-randomized studies (Sterne et al., 2023), the checklists verified the appropriateness and reliability of statistical methods used, study designs, reporting of results, and applicability of findings on national and international levels in addition to selection, measurement, detection, and outcome biases. Each item on the scoring sheets was assessed on a three-point scale: Yes (2), and No (1) as well as an option for 'unknown' which was not included in the scoring but items marked as 'unknown' were evaluated within the context and design of the study. The total quality score of the investigated study was obtained by adding the scores of each item, giving a total score ranging from 0 to 56. Only those studies assessed to be of good quality (t point of 60%) were included as instructed (Qayum, 2014). The initial assessment was carried out by the first author (HT), and then KS checked the outputs blinded from the initial assessment (Qayum, 2014). The results of the assessments were cross-checked, and a consensus was reached following a discussion between HT and KS on any disagreement.

Results

Recruitment and Screening

Sex and non-sexual violent offenders were recruited from low to high-security forensic psychiatry hospitals (Woodcock, 2015; Chakhssi et al., 2013), a community forensic mental health service (Gilbert et al., 2013), domestic violence agencies (McKee et al., 2012), a remand center (Dunne et al., 2018) and from prison settings (Sigre-Leirós et al., 2015a; Carvalho & Nobre, 2014; Efrati et al., 2019). Several

Table 3 Data extraction table

Authors	Population & Location	Outcome and Measures	Summary of Findings
Wood-cock (2015)	29 sex offenders aged between 24 and 63 (M=45.21, SD=9.67) with various mental disorders (MD) recruited from low, medium, or high-security UK psychiatric hospitals; 21 offenders with adult victims. 8 offenders with child victims (5 had only child victims, 3 had both child and adult victims). Race/Ethnicity: 10 White British, 4 Black British, 4 Black African, 3 Afro-Caribbean, 2 White Irish, 1 Asian, 5 men as 'Mixed'	Early maladaptive schemas (YSQ-S3; Young et al., 2003), offense schemas (My Life – Version 2; Mann & Hollin, 2010), psychological disorders: personality disorders, schizophrenia spectrum, bipolar disorder (case referral).	Non-MD child sex offenders (M=18.56, SD=1.04) scored higher in the vulnerability to harm schema than MD child sex offenders (M=10.75, SD=4.40), $t(7)$=−5.02, p=.002. Non-MD child sex offenders (M=20.78, SD=0.93) scored higher in the unrelenting standards schema than MD child sex offenders (M=13.00, SD=3.82), $t(7)$=−5.77, p<.001. Non-MD rapists (M=14.88, SD=0.94) scored higher in the enmeshment schema than MD rapists (M=10.00, SD=5.73), $t(20)$ = -3.91, p<.001.
Carvalho and Nobre (2014)	65 adult male offenders from Portuguese prison settings: 32 rapists aged between 20 and 58 (M=33.8, SD=9.34). 33 child sexual offenders aged between 22 and 58 (M=38.3, SD=9.61). 30 non-offending individuals were recruited online aged between 23 and 53 (M=31.6, SD=8.26). No report of racial and ethnic background.	Early maladaptive schemas (YSQ-S3; Young et al., 2003), offender typology (Case referral), psychopathology (BSI; Derogatis, 1992),	MANOVA results showed that there was a significant effect of group in the scores for the pessimism schema (F(2,87)=14.906, p<.001, η^2 =0.26). After the Bonferroni corrections, child sex offenders scored higher on the pessimism schema than rapists (Hedges' g=0.47, p<.01
Chakhssi et al. (2013)	66 adult male offenders from an impatient Dutch forensic psychiatric hospital, 23 child sexual offenders (M=47.0, SD=10.1), 19 adult sexual offenders (M=35.8, SD=9.0), 24 non-sexual violent offenders (M=38.8, SD=9.66). No report of racial and ethnic background.	Early maladaptive schemas (YSQ-L2; Young & Brown, 1990), personality disorders (Case referral), mood and anxiety disorders (Case referral), and psychopathy (PCL-R; Hare, 2003).	Child sex offenders scored higher on all schemas than violent offenders; however, effect sizes were greater for the abandonment (p<.01, d=1.7), social isolation (p<.01, d=1.0), defectiveness/ shame (p=.043, d=0.94), subjugation (p=.014, d=0.94). subjugation (p=.014, d=0.94), and self-sacrifice schemas (p=.013, d=0.89). After corrections, it was found that rapists (M=2.11, SD=0.64) scored higher on the subjugation schema than non-sexual violent offenders (M=1.57, SD=0.44) with a large effect size (p<.017, d=1.08).
McKee et al. (2012)	40 male batterers, aged between 18 and 54 (M=34.1, SD=10.4), participated in U.S. court-mandated group services at domestic violence agencies. Race/ethnicity: Caucasian (78%, n=31), 10% (n=4) African American, 10% (n=4) Native American/ American Indian, and Asian/ Asian American.	Trait anger and inward and outward aggression (STAXI-2; Spielberg, 1999), early maladaptive schemas (YSQ-2).	Insecure attachment and all domains except the Other Directedness domain accounted for 51% of the variance in trait anger, R^2=0.514, F(6, 32)=5.65, p<.001. Yet, the Impaired Limits domain was the only predictor of trait anger (β=0.47, p<.01).

Table 3 (continued)

Authors	Population & Location	Outcome and Measures	Summary of Findings
Sigre-Leirós, Carvalho & Nobre, (2014)	160 offenders aged between 23 and 78 from Portuguese prisons: 50 rapists aged between 24 and 60 (M=38.0, SD=9.1), 51 non-sexual violent offenders aged between 25 and 78 (M=40.6, SD=12.2). 59 child molesters against children under the age of 14: 19 pedophilic offenders aged between 23 and 76 (M=44.8, SD=14.1). 40 non-pedophilic offenders aged between 30 and 73 (M=44.9, SD=9.6). No report of racial and ethnic background.	Pedophilia (SSPI; Seto & Lalumière, 2001), social desirability (SDRS-5; Hays et al., 1989), psychopathology (BSI; Derogatis, 1992), early maladaptive schemas (YSQ-S3; Young et al., 2003).	Pedophilic child sex offenders were more likely to hold the defectiveness schema than others (OR=2.13–2.22, p<.05). Non-pedophilic child sex offenders were less likely to hold the vulnerability schema (OR=0.41, 95% CI [0.24 – 0.70], p≤.001) and enmeshment schema (OR=1.85, 95% CI [1.14–3.01], p<.05) than rapists. Rapists were more likely to hold approval-seeking (OR=1.70, 95% CI [1.08–2.66], p=.021), punitiveness (OR=1.94, 95% CI [1.13–3.33], p=.016) schemas but less likely to hold the social isolation schema (OR=0.46, 95% CI [0.26 –0.83], p≤.01) than violent offenders.
Efrati et al. (2019)	252 male offenders aged between 18 and 74 from Israeli prisons. 68 sex addicts (M=32.26, SD=14.98). 81 violent offenders (M=35.67, SD=9.98), 103 sex offenders (M=43.57, SD=16.59): 75 with child and 28 with adult victims.	Early maladaptive schemas (YSQ-S3; Young et al., 2003), compulsive sexual behaviors (I-CSB; Efrati & Mikulincer, 2018).	A mixed sample of child sex offenders and rapists did not significantly differ from non-sexual violent offenders in schema endorsement.
Dunne et al. (2018)	208 male violent offenders, aged between 18 and 60 (M=34.99, SD=9.35), from an Australian remand center where individuals are accused of various crimes and held in custody awaiting a trial. Race/ethnicity: 71.60% Australian, 6.30% Australian Aboriginal, 4.50% European, 4.40% Asian, 2.90% Māori, and 10.30% mixed or other ethnicities.	Early maladaptive schemas (YSQ-S3; Young et al., 2003), schema modes (SMI; Young et al., 2008), history of aggression (LHA-SA; Coccaro et al., 1995), socially desirable responding (IM-PDS; Paulhus, 1998).	Aggression history was associated with the schemas of entitlement (r=.18, p<.01), mistrust (r=.17, p<.05) and insufficient self-control (r=.22, p<.001). In hierarchical multiple regression analyses, the addition of the three schemas in Step 2 increased the explanation of variance in aggression history, F(3, 199)=5.06, p=.002, and explained 27.40% of the total variance in aggression history scores, adjusted R^2=0.26, F(5, 199)=15.03, p<.001. In Step 2, insufficient self-control was the only schema to uniquely predict higher aggression scores (β=0.16, p<.05).
Gilbert et al. (2013)	78 adult males and 9 adult females:. No report of age-related information. Race/ethnicity: White Australian (n=62, 71%) background; the remaining people were of "other" or mixed-ethnicity (n=15, 17%), Asian (n=7, 8%), or Aboriginal or Torres Strait islander (n=3, 3%) origin.	Trait anger (STAXI-2; Spielberg, 1999), aggression history (LHA-SA; Coccaro et al., 1995), early maladaptive schemas (YSQ-S3; Young et al., 2003).	Aggression history was associated with social isolation (r=.26, p<.05), dependence (r=.30, p<.05), failure (r=.24, p<.05) entitlement (r=.29, p<.05) and insufficient self-control schemas (r=.33, p<.05). Higher scores in the insufficient self-control schema, β=0.35, p=.003, predicted higher aggression scores, R^2=0.12, F(1, 72)=9.78, p=.003.

studies utilized recruitment meetings with clinicians and researchers at the place of recruitment (Efrati et al., 2019; McKee et al., 2012; Woodcock, 2015; Gilbert et al., 2013) and relied on clinicians and staff referrals for participants (Woodcock, 2015). One study had the researcher approach participants individually to give information about the study (Sigre-Leirós et al., 2015a). One study disclosed that orientation sessions were used as recruitment hubs (Dunne et al., 2018). One study did not explicitly state the recruitment process for its participants (Chakhssi et al., 2013); while another only disclosed the recruitment process for its control group, which was via online advertisement, but did not disclose the process for recruiting rapists and child sex offenders in prison settings (Carvalho & Nobre, 2014).

Only two studies (Carvalho & Nobre, 2014; Efrati et al., 2019) disclosed information about the response rate of samples. One study indicated a response rate of 87% for the sex offender sample and 40% for the non-sexual offender sample (Carvalho & Nobre, 2014). Efrati et al. (2019) also disclosed separate response rates for each participant group: 97% for sex offenders; 68% for non-sexual violent offenders; 100% for sexual addicts. Half of the included studies did not disclose any information regarding participant compensation (Chakhssi et al., 2013; Sigre-Leirós et al., 2015a; Gilbert et al., 2013; Efrati et al., 2019). However, one study (Carvalho & Nobre, 2014) explicitly disclosed that there was no monetary compensation for participation; another study disclosed that participants were given a certificate of participation (Dunne et al., 2018). Two studies disclosed that participants received monetary compensation worth $2 (McKee et al., 2012) and £10 (Woodcock, 2015).

Several studies included screening procedures for participants. One study recruited from three different units specialized in sex offenders, sexual addicts and non-sexual violent offenders to forego screening for criminal histories (Efrati et al., 2019). Three studies used the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV) to screen for acute and pervasive psychotic episodes and adequate intellectual functioning (Carvalho & Nobre, 2014; Gilbert et al., 2013; Chakhssi et al., 2013). One of these studies explicitly disclosed that they excluded four participants due to pervasive psychotic symptomatology, inability to speak English or intellectual disability (Gilbert et al., 2013); while some studies indexed the victim age typology of sex offenders, which was retrieved from forensic reports, using the DSM-IV (Carvalho & Nobre, 2014; Chakhssi et al., 2013). One study used the Sexual Experiences Survey (Koss et al., 2007) to screen for the frequency of sexually abusive behaviors but did not disclose any excluded participants due to this screening method (Carvalho & Nobre, 2014). Two studies utilized forensic and criminal reports of offenders to assign labels to the offender samples (Carvalho & Nobre, 2014; Sigre-Leirós et al., 2015a).

Sample Demographics

The overall sample sizes varied between 29 and 208. Seven studies include male-only samples (Woodcock, 2015; Sigre-Leirós et al., 2015a; Chakhssi et al., 2013; Carvalho & Nobre, 2014; Dunne et al., 2018; McKee et al., 2012; Efrati et al., 2019) while only one study (Gilbert et al., 2013 included female participants ($n=9$). Gilbert et al. (2013) did not find any significant differences between female and male participants,

except in aggression history in which males scored ($M=12.13$, $SD=7.60$) higher than females ($M=6.11$, $SD=7.90$). One study did not report the age range of the sample (Efrati et al., 2019); the age range in the other studies was 18 to 78 years of age. Four studies did not report racial or ethnic variations but stated the country where the study was conducted (Portugal: Sigre-Leirós et al., 2015a; The Netherlands: Chakhssi et al., 2013; Portugal: Carvalho & Nobre, 2014; Israel: Efrati et al., 2019). Four studies included a diverse range of racial and ethnic backgrounds from their corresponding locations (United Kingdom: Woodcock, 2015; Dunne et al., 2018; Australia: Gilbert et al., 2013; United States: McKee et al., 2012).

Study Methodology

All the studies employed quantitative designs. Only one study was a doctoral dissertation (Woodcock, 2015) while the rest were articles published in peer-reviewed academic journals. Five of the included studies were denoted as cross-sectional studies (Woodcock, 2015; Sigre-Leirós et al., 2015a; Chakhssi et al., 2013; Carvalho & Nobre, 2014; Efrati et al., 2019) while three adopted a cohort design (Dunne et al., 2018; McKee et al., 2012; Gilbert et al., 2013).

All studies employed the same well-validated questionnaire to identify early maladaptive schemas, namely the Young Schema Questionnaire (Young et al., 2003) although different versions of the questionnaire were utilized. Two studies investigated the aggression history of non-sexual violent offenders (Dunne et al., 2018; Gilbert et al., 2013) with the Life History of Aggression-Self-Report-Aggression Subscale (LHA-SA). Two studies measured trait anger with the State-Trait Anger Expression Inventory-2 (STAXI$-$2; McKee et al., 2012; Gilbert et al., 2013).

Offender Typology

Child sex offenders were present in five studies (Woodcock, 2015; Sigre-Leirós et al., 2015a; Chakhssi et al., 2013; Carvalho & Nobre, 2014; Efrati et al., 2019). Of these studies, some included rapists (Woodcock, 2015; Chakhssi et al., 2013; Sigre-Leirós et al., 2015a) while one of these merged child sex offenders and rapists under the term 'sex offenders' (Efrati et al., 2019). Only three studies included non-sexual violent offenders for comparison (Sigre-Leirós et al., 2015a; Chakhssi et al., 2013; Efrati et al., 2019). One study included rapists and a non-offending sample in their comparisons (Carvalho & Nobre, 2014). The remaining studies included non-sexual violent offenders: perpetrators of domestic abuse (McKee et al., 2012); offenders who caused unintentional or intentional injury by assault (Gilbert et al., 2013); and unspecified violent offenders (Dunne et al., 2018). A small minority of those domestic abuse perpetrators were those who abused their family members while the rest had abused their romantic partners (McKee et al., 2012).

Early Maladaptive Schemas in Sex Offenders

Five studies looked at specific types of sex offenders in their investigation of early maladaptive schemas. Rather than reporting overall prevalence in sex offenders, each

study compared patterns of early maladaptive schemas between subtypes of offenders. Doing so showed that there were limited differences in schema profiles of child sex offenders and rapists while two studies found no difference at all (i.e., Woodcock, 2015; Chakhssi et al., 2013). Out of 18 early maladaptive schemas, child sex offenders scored higher only in the pessimism schema than rapists (Carvalho & Nobre, 2014). However, the inclusion of mental health disorders and pedophilic interests yielded distinct schema profiles within and between different types of sex offenders (Woodcock, 2015; Sigre-Leirós et al., 2015a).

Three studies examined early maladaptive schemas in offenders while taking into account mental disorders or formal measures of psychological distress. One study found that, compared to mentally disordered child sex offenders, non-mentally disordered child sex offenders scored significantly higher on only two schemas: unrelenting standards and vulnerability to harm/illness (Woodcock, 2015). In the same study, on another dimension, non-mentally disordered rapists endorsed the enmeshment schema more than mentally disordered rapists. Two studies by another group controlled for psychological distress, using the Brief Symptom Inventory. In the first, pedophilic child sex offenders were two times more likely to endorse defectiveness/shame and subjugation schemas than both rapists and non-pedophilic child sex offenders (Sigre-Leirós et al., 2015a). Further, non-pedophilic offenders were more likely to endorse social isolation, enmeshment, and unrelenting standards schemas than rapists (Sigre-Leirós et al., 2015a). In the same study, rapists were more likely to hold the vulnerability to harm, approval-seeking, and punitiveness schemas compared to non-pedophilic child sex offenders. In the second (Sigre-Leirós et al., 2015b), pedophilic offenders were more likely to hold the defectiveness and subjugation schemas compared to the other groups (rapists, non-pedophilic child molesters, and non-sex offenders). Likewise, non-pedophilic child molesters were more likely to hold social isolation, enmeshment, and unrelenting standards schemas compared to rapists. Additionally, rapists were more likely to hold the vulnerability to harm, approval-seeking, and punitiveness schemas compared to non-pedophilic and/or non-sex offenders.

Early Maladaptive Schemas in Non-Sexual Violent Offenders

Three studies examined early maladaptive schemas in non-sexual violent offenders; these studies also considered offenders' history of aggression and trait anger levels (Dunne et al., 2018; Gilbert et al., 2013; McKee et al., 2012). Schemas of entitlement, mistrust, insufficient self-control, social isolation, dependence, and failure were all found to be associated with their aggression histories (Dunne et al., 2018; Gilbert et al., 2013). However, further regression analyses showed that non-sexual violent offenders' aggression histories were commonly and overwhelmingly predicted by insufficient self-control schema (Gilbert et al., 2013; Dunne et al., 2018). One study found that non-sexual violent offenders' trait anger levels, which reflect the tendency to experience frequent and intense levels of anger, were found to be predicted by insufficient self-control and entitlement schemas in the Impaired Limits domain (McKee et al., 2012).

Schema Profile Differences Between Sex Offenders and Non-Sexual Violent Offenders

Only two studies directly compared early maladaptive schemas profiles of sex offenders and non-sexual violent offenders. In one study, child sex offenders scored significantly higher in all early maladaptive schemas than non-sexual violent offenders (Chakhssi et al., 2013). In other studies, rapists scored significantly higher in the schemas of vulnerability to harm, approval seeking, punitiveness, and subjugation but scored significantly less in the social isolation schema than non-sexual violent offenders (Chakhssi et al., 2013; Sigre-Leirós et al., 2015a).

Sexual interest in children acted as a more specific factor in establishing differences in schema profiles between child sex offenders and non-sexual violent offenders. Pedophilic child sex offenders were twice as likely to endorse defectiveness/shame and subjugation schemas than non-sexual violent offenders, but there were no significant differences between non-pedophilic child sex offenders and non-sexual violent offenders (Sigre-Leirós et al., 2015a).

Discussion

We performed a systematic review of studies investigating the prevalence and patterns of early maladaptive schemas in sex offenders and non-sexual violent offenders and subgroups of each type of offender. Across eight quantitative studies of cross-sectional and cohort design, there was a lack of a consistent approach to quantifying early maladaptive schemas in sex offenders and non-sexual violent offenders. Several studies focused instead on comparisons between groups, and subgroups. The overall pattern found only limited differences in schema endorsement within and between different types of sex offenders and non-sexual violent offenders. Among sex offenders, rapists and child sex offenders endorsed similar schemas. For non-sexual violent offenders, the Impaired Limits domain, which represents self-control issues and self-entitlement, was found to have a prominent place in non-sexual violent offenders' cognitive world. Few studies compared sex offenders with non-sexual violent offenders. In those that did, sex offenders held significantly more schemas that endorsed negative perceptions of themselves and others than non-sexual violent offenders.

Sample Demographics

The demographic distributions of the offenders across the included studies were mostly congruent with the existing research. All the sex offenders in these studies were men; most of these were white men in their late 30s and early 40s as confirmed by previous research (Babchishin et al., 2015; Houtepen et al., 2014; Burke et al., 2002). Non-sexual violent offenders in this review were also mostly white men in their mid-30s. While the evidence shows that non-sexual violent offenders were more likely to be under 30 (da Costa et al. 2021). One reason for this incongruence may have arisen because studies that included offenders often included a heterogeneous sample of non-sexual violent offenders or specific offender types. One study included

domestic violence perpetrators (McKee et al., 2012); while the rest included two different types of offenders (Gilbert et al., 2013; Dunne et al., 2018). Several studies did not report the racial and ethnic backgrounds of their samples and one study did not report information related to the age of their samples (Gilbert et al., 2013). Only one study included female offenders (i.e., Gilbert et al., 2013). There is some evidence that female offenders, especially sex offenders, reported being victims of emotional and physical sexual abuse more than male offenders (West et al., 2011; Murdoch et al., 2012). Hence, schema profiles of female offenders are likely to be different from male offenders. Future studies should focus on including samples that are demographically representative of their respective locations.

Study Methodology

The current review followed widely recognized guidelines and instructions in researching and reporting a systematic review (PRISMA; Liberati et al., 2009), determining inclusion and exclusion criteria (PICO; Schardt et al., 2007). In the process of assessing quality, we adopted the Cochrane guidelines and procedures (Sterne et al., 2023) in assessing the risk of bias in the included studies and used two raters who independently rated each study and reached an agreement. The current review included eight studies concerned with the presence of early maladaptive schemas in sex offenders and non-sexual violent offenders. While there are no lower and upper limits concerning the number of included studies in a systematic review (Ahn & Kang, 2018), a higher volume of research would have increased the strength of this review.

Early Maladaptive Schemas in Sex Offenders

We included five studies that explored early maladaptive schemas in different types of sex offenders. Four of the studies (i.e., Woodcock, 2015; Chakhssi et al., 2013; Sigre-Leirós et al., 2015a; Carvalho & Nobre, 2014) only included child sex offenders and rapists, while one study considered both rapists and child sex offenders as a single group (i.e., Efrati et al., 2019). However, these studies did not include other types of sex offenders (e.g., child sexual exploitation material offenders, and child luring offenders; Seto, 2017). Two of the studies found no differences between the profiles of child sex offenders and rapists (i.e., Woodcock, 2015; Chakhssi et al., 2013), while another found that child sex offenders indicated a greater pessimistic outlook in life (i.e., pessimism schema) than rapists (Carvalho & Nobre, 2014). Previous research has demonstrated that child sex offenders often had problems with intimacy, social skills, and other internalizing problems (Whitaker et al., 2008; Shechory & Ben-David, 2005), while rapists are deemed to be antisocial and aggressive and experience externalizing problems (Garlick et al., 1996; Ó Ciardha, 2011; Polaschek et al., 1997). Hence, future work will benefit from comparing how such psychological and behavioral problems may map onto distinct patterns of early maladaptive schemas.

Striking differences emerged when mental health issues were considered in the within-group analyses of rapists and child sex offenders (Woodcock, 2015). Rapists without any mental health conditions held firmer beliefs about being more enmeshed

with their significant others than those with mental health conditions. Child sex offenders without any mental health conditions held firmer beliefs about being over-critical toward themselves and others and perceived themselves as more vulnerable to disastrous and unexpected events/illnesses (i.e., the vulnerability to harm schema) than those with mental health conditions (Woodcock, 2015). These results were unexpected, given that these schemas were previously found to be associated with clinical manifestations of schizophrenia (Azadi et al., 2019), depression (Renner et al., 2012), and social anxiety (Pinto-Gouveia et al., 2006; Calvete et al., 2013). Notably, however, most of the aforementioned studies did not include a control group of non-mentally disordered individuals. Moreover, as highlighted by the authors (Woodcock, 2015), the findings may have been related to the successful treatment of their inpatient sample having alleviated early maladaptive schemas. Our review did not identify any studies that compared rapists and child sex offenders with mental health conditions and those without such conditions, nor studies taking more comprehensive approaches to underlying diagnoses, including personality disorders. Hence, future research into early maladaptive schemas would benefit from looking into comparing all different types of sex offenders based on specific mental disorders and symptomatology.

Our review found that pedophilic child sex offenders were more likely than rapists to hold beliefs about being inherently defective, inferior, and unlovable (i.e., the defectiveness schema) as well as needing to suppress their feelings to prevent retaliation and rejection (i.e., the subjugation schema; Sigre-Leirós et al., 2015a) supports prior research. For instance, pedophilic child sex offenders, due to indirect or direct repercussions of their sexual interests, have a substantial negative perception of themselves (Whitaker et al., 2008; Shechory & Ben-David, 2005) and feel more stigmatized by their communities (Jahnke, 2018; Tan et al., 2016; Levenson et al., 2007). Furthermore, this study found that non-pedophilic child sex offenders endorsed beliefs about being socially isolated (i.e., the social isolation schema), identity collision with significant others (i.e., the enmeshment schema), and having rigid standards and expectations for themselves and others (i.e., the unrelenting standards schema) more than rapists (Sigre-Leirós et al., 2015a). In contrast, rapists endorsed beliefs about being vulnerable to unexpected and disastrous events (i.e., the vulnerability to harm schema), needing approval and acceptance from others (i.e., the approval-seeking schema), and being extremely critical of others' mistakes and failures (i.e., the punitiveness schema) more than non-pedophilic offenders. This contrasts with previous studies, which have suggested that non-pedophilic child sex offenders are similar to rapists in tendencies to opportunistically sexually abuse (Shechory & Ben-David, 2005) and psychopathy levels (Brown et al., 2015; Rice & Knight, 2019). Hence, further work is required to disentangle the shared versus distinct patterns of psychopathology between these specific subgroups.

Early Maladaptive Schemas in Non-Sexual Violent Offenders

The included studies of non-sexual violent offenders included domestic violence perpetrators (McKee et al., 2012) and violent offenders with a history of various types of offenses (Gilbert et al., 2013; Dunne et al., 2018) and defined early maladaptive

schemas concerning different outcomes. Each of the studies adopted cohort designs, and these examined early maladaptive schemas in their relation to other factors such as aggression history (Dunne et al., 2018; Gilbert et al., 2013) and trait anger (Gilbert et al., 2013; McKee et al., 2012). Hence, we were unable to synthesize a distinct schema profile for different types of offenders based on these studies. However, studies in our review suggest that schemas in the Impaired Limits domain were important associates of trait anger (Gilbert et al., 2013; McKee et al., 2012) and aggression history (Dunne et al., 2018; Gilbert et al., 2013), across various types of non-sexual violent offenders. This domain contains schemas that describe problems with self-indulgence and self-control (Young et al., 2003). Additionally, offenders' perception of their inability to control their urges and desires (i.e., the insufficient self-control schema) was revealed to be a common theme that appeared across different types of non-sexual violent offenders, in association with trait anger and aggression history. This schema addresses individuals' intolerance to delaying gratification and uncomfortable emotions such as fear and anxiety; thus, they tend to experience emotional outbursts and violent tendencies (Young et al., 2003). This is in keeping with other research demonstrating similar features in non-sexual violent offenders, as indexed by hostile cognitive distortions (Chereji et al., 2012), self-control issues (Woessner & Schneider, 2013; Flexon et al., 2016), and empirically based models of reactive aggression which emphasize the role of frustrative non-reward (Bertsch et al., 2020).

Differences in Early Maladaptive Schema Patterns Between Sex Offenders and Non-Sexual Violent Offenders

Overall, studies identified in the review provide limited support for differential patterns of early maladaptive schemas between different types of sex offenders and non-sexual violent offenders. For instance, one study found that child sex offenders scored significantly higher in all schemas than non-sexual violent offenders (Chakhssi et al., 2013). Furthermore, pedophilic child sex offenders were more likely than non-sexual violent offenders to believe that they were inferior (i.e., the defectiveness/shame schema) and would face retaliation if they expressed their true identities (i.e., the subjugation schema; Sigre-Leirós et al., 2015a). The prevalence of such schemas is in keeping with previous research demonstrating child sex offenders' greater problems in social skills and intimate relationships compared to non-sexual violent offenders (Whitaker et al., 2008; Marshall & Marshall, 2010; Ward et al., 1997). Future work can benefit from using larger sample sizes, employing, and specifying different types of violent offenders, and including different types of child sex offenders (e.g., child-luring offenders and child sexual exploitation material offenders).

Our findings also support differential patterns of early maladaptive schemas between rapists and non-sexual violent offenders. Results suggested that rapists were more likely to be harsh to other's mistakes (i.e., the punitiveness schema), seek approval from their significant others (i.e., the approval-seeking schema), perceive themselves as vulnerable to harm (i.e., the vulnerability to harm schema) and be more fearful of rejection if they expressed their true feelings and needs than non-sexual violent offenders (i.e., the subjugation schema; Sigre-Leirós et al., 2015a; Chakhssi et al., 2013). These results support previous reports of rapists holding beliefs about

the world being a dangerous place (Sarkar, 2013; Polaschek & Ward, 2002; Beech & Ward, 2004). The presence of punitive tendencies also aligns with other research suggesting that rapists seek justification for their offenses by blaming their victims (Milner & Webster, 2005). Rapists were also less likely to hold beliefs about being socially isolated (i.e., the social isolation schema) than non-sexual violent offenders (Sigre-Leirós et al., 2015a). In contrast, previous research showed that rapists scored significantly higher both in overall loneliness and emotional loneliness (Garlick et al., 1996; Bumby & Hansen, 1997) than non-sexual violent offenders; however, there were no significant differences in social loneliness (Blake & Gannon, 2011; Bumby & Hansen, 1997). The social isolation schema addresses both social loneliness and emotional loneliness indistinctively (Young et al., 2003) as it incorporates the absence or minimal presence of emotionally meaningful relationships (e.g., emotional loneliness), and general social companionship (e.g., social loneliness) in the individual's social circle (van Tilburg, 2020), hence this contradiction may be attributed to the differences in the construct definition and measures of loneliness. Notably, when a heterogenous sample of rapists and child sex offenders were compared with non-sexual violent offenders, no differences were found (Efrati et al., 2019). Alongside the studies outlined above, this negative finding illustrates the importance of considering subtypes of offender types when exploring underlying psychopathology.

While this review highlights the potential influence of early maladaptive schemas in sexual and violent offending, it is clear that they are not directly causative of future offending behavior. Not all individuals endorsing early maladaptive schemas go on to offend, and in those that do, other factors are likely to be important. Some of these variables may interact with early maladaptive schemas to increase the risk of offending. For instance, the role of early maladaptive schemas in sexual and non-sexual violent offending might be mediated by specific patterns of trait anger and aggression history, which have been shown to be associated with several early maladaptive schemas (Askari, 2019; Gilbert et al., 2013; Dunne et al., 2018). Early maladaptive schemas have also been implicated in the development of antisocial personality disorder (ASPD; Shorey et al., 2014; Zirakbash et al., 2015; Young et al., 2003). ASPD is characterized by impulsive, destructive and often criminal behavior and is a major risk factor for reoffending in non-sexual violent offenders (Filov, 2019; Shorey et al., 2014). Compared to health controls, those with ASPD demonstrate more severe early maladaptive schemas related to impulsivity, entitlement, emotion deprivation and social isolation (Ozdel et al., 2015) and schemas related to impulsivity and entitlement correlate with the severity of ASPD symptoms (Gilbert & Daffern, 2013). These associations are in keeping with emotion regulation difficulties and impulsivity in non-sexual violent offenders (Garofalo et al., 2021; Gillespie et al., 2018; Garofalo & Velotti, 2017). Therefore, the inclusion of ASPD and its component traits as potential mediating variables will be an important consideration in future research on the effects of early maladaptive schemas on offending.

Previous studies have found that early maladaptive schemas are associated with adverse childhood experiences in clinical and non-clinical populations (May et al., 2022; Kaya Tezel et al., 2015; Rezaei et al., 2016) and play a mediating role in the relationship between childhood psychological abuse and interpersonal problems in adulthood (Messman-Moore et al., 2007). Other studies have implicated adverse

childhood experiences specifically in abnormal patterns of behavior and attitudes in both sexual and non-violent sexual offenders. For instance, childhood sexual abuse is linked to pervasive anger in sex offenders (Ramirez et al., 2015) and to violent tendencies in non-sexual violent female offenders (Trauffer & Widom, 2017) and predictive of sexual aggression in sex offenders (Drury et al., 2019; Jespersen et al., 2009). This is supported by a meta-analysis (Fitton et al., 2020) demonstrating that childhood abuse modestly increased the risk of later violence perpetration (OR = 1.8, 95% CI [1.4–2.3]). Given previous studies showing an association between schemas and sexual aggression (Sigre-Leirós et al., 2013) and generalized aggression (Askari et al., 2019), early maladaptive schemas of sex offenders and non-sexual violent offenders likely play a mediating role in the relationship between adverse childhood experiences and aggression. It is also possible that adverse childhood experiences influence what specific type of sexual offending is more likely to occur. For instance, one study suggests that sex offenders report more abuse in their childhood years than non-sexual violent offenders (e.g., Haapasalo & Kankkonen, 1997; Jespersen et al., 2009).

Limitations and Implications for Future Research and Practice

This review was limited by several inconsistencies in the included studies concerning demographics, recruitment strategies, and reporting of findings, as outlined above. Only four studies included the racial and/or ethnic minorities of their corresponding locations and reported the characteristics of these communities; only one study included a sample of female offenders. Inclusion of female offenders and ethnic minority samples is essential to provide a more complete understanding of the role of early maladaptive schemas in sex offenders and non-sexual violent offenders. Furthermore, included studies were conducted in higher-income countries with relatively extensive therapeutic and offender management systems. Hence, the generalizability of this review is limited. Future research in low and middle-income countries will be important in gaining an understanding of the role of early maladaptive schemas throughout the world, including the potential mediating role of cultural factors.

A further limitation was the lack of consideration of potentially confounding or mediating psychological variables. For instance, none of the included studies examined the association of sex offenders' trait anger levels and past incidents of aggression with early maladaptive schemas. Finally, the relative lack of subcategorization of sex offender typologies (e.g., child sexual exploitation material users, child luring offenders) limited the inferences of our review. When this was done, there were several suggested patterns of variation between subtypes. This more exact approach to classification is required to gain a more nuanced understanding of the role of early maladaptive schemas in offending.

This review has some potentially important implications for clinical assessment, offender management and therapeutic services. Previous research has demonstrated the effectiveness of schema therapy in treating personality disorder symptoms of sex offenders (Oettingen & Rajtar-Zembaty, 2022) and non-sexual violent offenders (Bernstein et al., 2023), decreasing hostility in a mix of violent and sex offenders (de Klerk et al., 2022). However, our review has suggested differences in the schema pro-

files of sex offenders and violent offenders. Other studies have shown that child sex offenders experience intense interpersonal problems (e.g., Babchishin et al., 2015), while non-sexual violent offenders struggle with impulse control and anger management (e.g., Gilbert et al., 2013). Together, this work suggests that schema therapy should be tailored to different types of sex offenders and non-sexual violent offenders, and different patterns of early maladaptive schema profiles and related symptom clusters. Such individualized therapies may benefit from employing specific therapeutic tools for specific problems, such as behavioral interventions for impulse control problems, and empathetic confrontation for alleviating interpersonal problems (Young et al., 2003). As well as improving the psychological well-being of offenders and preventing future sexual and violent offenses, such adjustments may reduce some of the associated costs of therapy, such as lengthier duration and drop-out.

Conclusions

Our review has provided the first systematic synthesis of research on both the prevalence and patterns of early maladaptive schemas of sex offenders and non-sexual violent offenders. Overall, evidence suggests that early maladaptive schemas are common in both groups, but with some evidence for potentially important differences in patterns between groups and subgroups. Offenders' atypical sexual interests and mental health conditions may be confounding factors and warrant further consideration. Despite a limited evidence base, the current review contributes to the literature by highlighting the importance of considering early maladaptive schemas in sexual and non-sexual violent offenders in understanding their psychological vulnerabilities. The study also highlights the importance of specificity in subtyping offending categories and consideration of the role of confounding variables, to develop a more sophisticated understanding of the psychopathological pathways to sexual and violent offending and contribute to therapeutic and offender management services.

Declarations

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