A discussion of early maladaptive schemas in men convicted sexual offenders in Poland

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Abstract

Introduction: This study aims to explore differences in the prevalence of early maladaptive schemas (EMS) in convicted sexual offenders (CSO's) as compared to the general male population (control group).

Methods: The study included 102 men incarcerated for sexual offences and 167 men from a non-criminal population. The study used the Polish version of Young's schema questionnaire – YSQ-S3-PL.

Results: The results demonstrated a higher degree of EMS severity in CSO except in the 'impaired limits' domain where non-criminal individuals scored higher. The individuals who have committed sexual offenses displayed more extensive and severe schemas than non-criminal / non-treated males (including more EMS domains).

Discussion: The study revealed nine early maladaptive schemas characterising the specific mind-set of male sex offender convicts. The results seem to illustrate well the genesis of the formation of a disordered personality as described by J. Young within the schema therapy concept. In the context of the cited studies, these structures – in addition to their important role in the development of psychopathology – appear to contribute to sexual offending.

Conclusions: The conclusion emerging from the findings is that EMS are an important problem for Individuals involved in sexual offending. A consideration of these schemas in the psychotherapy of CSO's would help develop new and effective therapeutic protocols designed to treat that particular population and reduce the rate of repeat offending.

early maladaptive schemas - EMS; convicted sexual offenders -CSO; sexual offending

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INTRODUCTION

A determination of the importance and role of cognitive factors in the process of becoming an offender has become an interesting field of research over the past years. Initially, research on the cognitive style of offenders focused mainly on cognitive distortions [1-3], seeing in them a number of factors contributing to the commission of a crime. The late 1990s marked the emergence of models based on cognitive schemas. Ward et al. (2000) presented the first schemas.

ma-based model to explain the process of commission of a sex offence [4]. This was followed by Mann and Beech (2003) who proposed their own model, which was also based on schema concepts [5]. Recidivism prevention models and cycle of crime theories all take account of these structures [6]. These reports provided the stimulus for research aimed at the identification of CSO' deeper cognitive structures – i.e. Early Maladaptive Schemas (EMS, schemas). Conceptualised by Jeffrey Young, these schemas represent harmful cognitive/emotional patterns that originate in early childhood and develop, become entrenched and repeat later in life [7, 8]. They are a ubiquitous filter triggered in the continuous process of collecting and processing information about self, others, and the environment. They cover several important areas (domains) relating to fundamental biologically and evolutionarily conditioned human needs connected with their relationship with their primary caregiver¹.

SCHEMA DOMAINS and interpersonal behaviour

In Young's view, the rise of psychopathological symptoms is related to frustration of fundamental needs at an early stage of childhood development. The child's core needs (i.e. security, bonding, autonomy, acceptance, expression and boundaries) are laid open to unfavourable external factors² of a chronic (e.g. toxic parenting environment, caregiver illness) or episodic nature (e.g. experience of trauma, loss). Life experiences that generate need frustration is locked in a cycle of constant re-interpretation which congeals with time into a rigid life pattern (early maladaptive schema) composed of memories, physical sensations, emotions and cognitive constructs. This particular schema, while maladaptive, is perpetuated over the course of a person's life, as it provides a sense of predictability and constancy, and therefore – according to Young accurately captures the nature of psychopa-

thology and underlying personal, interpersonal and social difficulties. The literature points out that schemas considerably modify an individual's quality of functioning in various areas of life, while also being strongly associated with abnormal behavioural traits [9]. They significantly impair an individual's quality of life, relationships, connectedness, and affect self-esteem, behaviour and well-being [10]. Driven by frustrated needs, a person's maladaptive behaviours can vary according to the domain of neglect [Table 1]. For example: in the context of **disconnection** & rejection, deprivation of the need for security, stability, care, understanding, respect and sharing of feelings can lead to attachment-building in adulthood (i.e. establishing and maintaining deep emotional bonds with another person) or result in the repetition of a pathological pattern of (violent) relationships. Within the area of impaired autonomy & performance there appears a lack of confidence in one's own ability to separate, survive, function independently or act effectively, resulting in an inability to manage one's own behaviour responsibly, difficulty in making choices giving consideration to one's own and others' needs, and in forming reciprocal social relationships [11]. The deprivation of the need to have reasonable boundaries, associated with the domain of impaired limits, can create problems with self-control and achievement of long-term goals, as well as impaired ability to respect the rights of others, cooperate and offer commitment.

In light of the above, it seems pertinent to determine whether identifying and delimiting the area of frustrated needs of offenders will help to understand offending sexual behaviour.

The study of schemas in various disorders or health problems (i.e. addictions, personality disorders, affective disorders, post-traumatic stress disorder [PTSD], ACA Syndrome [Adult Children of Alcoholics], alexithymia and others) has recently attracted considerable interest in Poland. However, to the best of our knowledge, these structures have not yet been investigated

¹ Young's concept of EMS formation takes into consideration the role of biological and neuronal features.

The Schema therapy concept distinguishes 4 types of early developmental experiences that can lead to EMS: when a child has too few good experiences (toxic need frustration); when a child experiences harm or becomes a victim of violence (traumatisation or victimisation); when a child experiences too much of a good thing (over-caring), and when a child selectively internalises or selectively identifies with important people (identification with significant others) [8, p: 30].

in the context of human sexual functioning and its disruption involving sexual pathology, i.e. in the population of convicted male sex offenders. Other countries have investigated the occurrence of EMS in rapists [11]; differences in their prevalence between CSO and non-offenders have been studied [12]; the prevalence of these structures in rapists, child molesters and non-offenders have been compared [13]; rapists, child molesters (paedophilic and non-paedophilic), and non-sex offenders have also been compared in that respect [14]. Comparative studies have also been conducted between child sexual offenders. adult sexual offenders and non-sexual offenders [15]. The results of foreign studies cited suggest that EMS may influence offenders' self-perceptions [13, 15-16], that they are associated with aggressive sexual behaviour [14], and that they play a role in criminal behaviour [17].

The object of the present study was to investigate the presence of EMS in the population of convicted male sex offenders in Poland and to examine differences in the type and severity of EMS between convicted sex offenders and the non-criminal male population. In light of the above, the following research questions were posed:

- 1. Do the study groups differ with respect to the type and severity of EMS?
- 2. Is there a characteristic EMS constellation that may translate to the specific schema profile found in convicted male sex offenders?

Table 1. Early maladaptive schemas and schema domains

Domain: DISCONNECTION AND REJECTION

Schemes include deprivation of the need for security, stability, care, understanding, respect and sharing of feelings.

Abandonment/instability – the belief that loved ones will not be able to provide emotional support, a sense of strength or protection and cannot be relied upon.

Mistrust/abuse – the feeling that others are dishonest, hurtful, harmful, humiliating, manipulative and exploitative nd therefore untrustworthy.

Emotional deprivation – the belief that one's need for emotional support and care from others will not be met.

Defectiveness/shame — experiencing oneself as inferior, defective and not good enough/perfect enough, unworthy of love. **Social isolation/alienation** — the feeling that one is isolated from the rest of the world, different from all other people, or that one is not part of a group or community.

Domain: IMPAIRED AUTONOMY AND PERFORMANCE

Schemes involving a lack of confidence in the ability for separation, survival, independent functioning and effective action

Dependence/incompetence – the belief in one's own incompetence to cope, take care of oneself/one's own needs, make decisions and solve everyday problems/tasks.

Vulnerability to harm or illness — the belief that something bad will happen that cannot be prevented.

Enmeshment/undeveloped self — excessive involvement and emotional enmeshment in a relationship with another person at the expense of a clear sense of self-identity, distinctiveness or direction.

Failure – belief in one's own inferiority in the area of achievement (or) competence resulting in comparison with others, experiencing oneself as more stupid, untalented, under-educated or doomed to failure.

Domain: IMPAIRED LIMITS

Schemes involving difficulties in respecting the rights of others, undertaking cooperation, commitment or setting personal goals and pursuing them.

Entitlement/grandiosity the belief that one is special, better than others and that one has special rights and privileges and that one is not bound to the rules of reciprocity on which interpersonal relationships are based.

Insufficient self-control/self-discipline Difficulty with self-control and tolerating frustration or failure. Avoidance of any discomfort at the expense of honesty, unfulfilled needs, abandoned commitments.

Domain: OTHER-DIRECTEDNESS

The schemas originate from the suppression of important elements of one's own personality, in order to gain love, attention, support or to avoid revenge, and the focus on other people's desires, feelings and reactions, at the expense of one's own needs.

Subjugation – submission to the will of others for fear of unpleasant consequences, resulting in an attitude of exaggerated submissiveness generating anger shown through maladaptive symptoms (i.e. passive-aggressive behaviour, uncontrolled outbursts of anger, psychosomatic symptoms, hiding feelings, 'role-playing' or abuse of psychoactive substances).

Self-sacrifice – excessive focus on meeting the needs of others in everyday situations, at the expense of one's own needs or personal gratification.

Approval-seeking/recognition-seeking — an excessive focus on gaining support and recognition from others, and on attracting attention and fitting in with others, at the expense of developing a true and secure sense of self.

Domain: OVERVIGILANCE & INHIBITION

Schemas are associated with the inhibition of spontaneous feelings, impulses and choices or an exaggerated focus on acting according to strict, internalised rules and expectations regarding fulfilled tasks and ethical behaviour.

Negativity/pessimism – an excessive focus on the negative aspects of life while minimising or ignoring the positive or optimistic aspects of life, resulting in exaggerated caution, vigilance, excessive worry, complaining and inability to make decisions.

Emotional inhibition – a tendency to suppress spontaneous actions, to refrain from showing feelings (whether anger, aggression or positive impulses) and from showing weakness, resulting from a desire to avoid criticism, shame or loss of control over one's own behaviour.

Unrelenting standards/hypercriticality – the belief that one must meet and adhere to excessive standards of behaviour in order to avoid criticism, resulting in a sense of pressure and reduced self-esteem.

Punitiveness – the belief that people should be severely punished for their mistakes, involving a tendency to express anger, intolerance/patience, difficulty in forgiving or justifying mistakes, and deficits in understanding the feelings of others and accepting human imperfections.

(compiled from: Young J.E., Klosko J.S., Weishaar M. E. 2014; pp: 33-37) [8].

METHOD

Study subjects: The study included 152 men serving sentences of imprisonment in several prisons in Poland for sexual offences, of which 102 were qualified for analysis. The main criterion for selection into the group was a final conviction for a sexual offence specified in Chapter 25 of the Polish Criminal Code [18]. The men studied have been convicted of at least one sexual offence, some of them having an extensive record of sexual offences.

Research tools: The questionnaire study was conducted with the consent of the study subjects and supervised by the author of the paper. The study was voluntary. The male inmates were informed about the rules of the study and their rights, including the right to refuse to participate in the study, to stop the study at any time, to take a break, to refuse to answer any question.

File research was conducted without the participation of the respondents. The extracted data included data on the offender, the act committed by the offender and information on the victim and the victim-offender relationship. That data was plotted onto the "Sexual Offender Penitentiary File Extract Questionnaire" compiled specifically for the study.

Excluded from the analyses were 5 offenders who withdrew their consent to the survey, 7 offenders whose files were incomplete or unavailable and 38 whose responses on the YSQ-S3-PL contained missing data. Finally, analyses were conducted on a sample of 102 male convicted offenders.

The study also included a control group consisting of 167 men with no treatment and no criminal record, selected from a larger group of individuals recruited for other studies³ (see Oettingen et al. 2018) [19] In the current study, control subjects were matched at least one to each

³ The control group consisted of men selected from research on the Polish adaptation of the YSQ-S3-PL questionnaire. This research included a sample of 1,529 adults with no criminal record (927 females and 585 males) aged 18-85 years (mean age was 32 years), from non-clinical groups.

⁴ No. 122.6120.97.2017.

offender (where possible) and similar in age (+/ – 5 years) and with the same education. The study was approved by the Jagiellonian University's Bioethics Committee⁴.

The study used a Polish abbreviated version of Young's Schema Questionnaire [YSQ-S3-PL] to assess the severity of early maladaptive schemas – one of the central theoretical constructs of Schema Therapy. This method examines self-reported schemas. The questionnaire consists of 90 test items assigned to 18 scales corresponding to each schema. The responses comprise a 6-point Likert scale (response model ranging from 1 – 'completely untrue about me' to 6 – 'describes me perfectly'). The tool allows identifying the pattern of schemas characteristic of particular individuals. Scores for each schema range from 5 to 30. The higher the score, the higher the severity of the schema. The questionnaire achieved satisfactory psychometric properties (reliability measured by Cronbach's α coefficient showed varying internal consistency of the subscales, ranging from 0.80 to 0.62) [19].

Statistical analysis

Early maladaptive schemas (EMS), characterised by right-skewed distributions, were logarithmised to obtain distributions not significantly different from normal distributions. Descriptive statistics for the log-transformed EMS variables as well as for respondent age were presented, using mean and standard deviations (SD). T-student tests or one-way ANOVA with Bonferronni's correction for multiple comparisons were used to compare logarithmic EMS values across different respondent groups (control group vs convicted sexual offenders). The effect magnitude was expressed using the Cohen's statistic and the strength of the effect was visualised with the eta-square statistic. A difference was considered statistically significant if the p-value was less than 0.05, all tests being two-sided. Analyses were carried out, using SPSS software version 26.0 (Chicago, USA).

RESULTS

The study involved 102 convicted sexual offenders with an average age of 33.2 (SD=12.54) years and 167 control subjects with an average age of 36.2 (SD=14.34) years. Among those convicted of sexual offences, the majority (40 %) had received a vocational education. As many as 36% of the CSO's surveyed came from rural areas, less than 16 % were married at the time of the survey. The most common offences committed by the CSO's were offences under Article 200 (43%) and 197 (41%). Of those convicted, 33% were serving their sentence in the therapeutic regime. As many as 40% of the male offenders surveyed had annotations on their criminal record for committing non-sexual offences in addition to a sexual offence. Repeat offenders accounted for 23.5% of the offenders surveyed. Table 2 shows the detailed characteristics of the studied offenders.

Table 2. Chara	cteristics of men convicted of sexual offences
	Category

Variable	Category	n (%)
Education	Basic	18 (17.7)
	Lower secondary school	13 (12.8)
	Vocational	40 (39.2)
	Higher secondary school	13 (12.8)
	University	9 (8.8)
	Missing	9 (8.8)
Place of residence	Countryside	37 (36.3)
	City	26 (25.5)
	Town	26 (25.5)
	No permanent residence	1 (1.0)

	Missing	12 (11.8)
Marital status	Single	51 (50.0)
	Married	16 (15.7)
	Separated	12 (11.8)
	Divorced	3 (2.9)
	Cohabitation/informal relationship	7 (6.9)
	Widowed	2 (2.0)
	Missing	11 (10.8)
Category of offender	Paedophile (Article 200)	44 (43.1)
	Rapist (Article 197)	42 (41.2)
	Other (Article 198, Article 199, Article 201)	10 (9,8)
	Missing	6 (5.9)
Ward	Regular	14 (13.7)
	Therapeutic/special	34 (33.3)
	Missing	54 (52.9)
Criminal versatility	Only sex offences	46 (45.1)
	Miscellaneous offences, including sexual	41 (40.2)
	Missing	15 (14.7)
Previous criminal record	None	44 (43.1)
	Repeat offender	24 (23.5)
	Missing	24 (23.5)

The results of a comparative analysis of the incidence and severity of early maladaptive sche-

mas in the study groups (SO vs. CG) are presented in Table 3.

Table 3. EMS comparison between convicted sexual offenders (CSO) and control group (CG)

	CSO	CG	Effect magnitude			
	(n = 102)	(n = 167)				
	mean (sd)	mean (sd)	t Statistic	df	р	Cohen's d
Disconnection/Rejection	0.95 (0.41)	0.82 (0.32)	3.094	267	0.002	0.39
Emotional deprivation	0.77 (0.55)	0.68 (0.43)	1.446	267	0.149	0.18
Abandonment/Instability	1.18 (0.43)	0.91 (0.4)	5.285	267	<0.001	0.66
Mistrust/Abuse	1.02 (0.5)	0.91 (0.38)	2.074	267	0.039	0.26
Social isolation/Alienation	0.83 (0.52)	0.79 (0.42)	0.598	267	0.55	0.08
Defectiveness/Shame	0.71 (0.53)	0.6 (0.42)	1.834	267	0.068	0.23
Impaired Autonomy and/or Performance	0.83 (0.4)	0.69 (0.36)	2.980	267	0.003	0.37
Failure	0.83 (0.46)	0.64 (0.45)	3.433	267	<0.001	0.43
Dependence/Incompetence	0.71 (0.46)	0.69 (0.42)	0.467	267	0.641	0.06
Vulnerability to harm or illness	0.92 (0.52)	0.72 (0.43)	3.374	267	<0.001	0.42
Enmeshment/Undeveloped self	0.72 (0.44)	0.61 (0.42)	2.022	267	0.044	0.25
Impaired Limits	0.91 (0.4)	1.09 (0.3)	-4.307	267	<0.001	0.54
Entitlement/Grandiosity	0.92 (0.42)	1.09 (0.33)	-3.680	267	<0.001	0.46

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Insufficient self-control/Self-discipline	0.85 (0.47)	1.06 (0.38)	-4.002	267	<0.001	0.5
Other-Directedness	1.11 (0.32)	1.02 (0.26)	2.649	267	0.009	0.33
Subjugation	0.87 (0.41)	0.73 (0.4)	2.787	267	0.006	0.35
Self-sacrifice	1.25 (0.39)	1.06 (0.33)	4.273	267	<0.001	0.54
Approval-seeking /Recognition-seeking	1.08 (0.48)	1.13 (0.38)	-0.941	267	0.348	0.12
Overvigilance/Inhibition	1.13 (0.32)	1.03 (0.26)	2.701	267	0.007	0.34
Emotional inhibition	0.97 (0.42)	0.89 (0.41)	1.513	267	0.132	0.19
Unrelenting standards/Hypercriticalness	1.12 (0.38)	1.15 (0.31)	-0.766	267	0.445	0.1
Negativity/Pessimism	1.14 (0.45)	0.98 (0.38)	3.197	267	0.002	0.4
Punitiveness	1.14 (0.44)	0.96 (0.37)	3.523	267	<0.001	0.44

Compared to the control group, convicted sexual offenders presented a statistically significantly higher EMS severity within the following domains: disconnection/rejection, impaired autonomy, other-directedness, overvigilance and inhibition. In contrast, those in the control group scored higher in the impaired limits domain.

Within the domain of *disconnection/rejection*, the effect of the following schemas was strongest in offenders: abandonment/instability and mistrust/abuse.

Within the domain of *impaired autonomy*, the effect of the following schemas was strongest in offenders: failure, vulnerability to harm or illness and enmeshment/undeveloped self.

Within the domain of *other-directedness*, the effect of the following schemas was strongest in offenders: self-sacrifice and subjugation.

Within the domain of *overvigilance and inhibition*, the effect of the following schemas was strongest in offenders: punitiveness and pessimism.

In contrast, within the domain of *impaired limits*, the relationship was reversed, indicating higher scores for the schemas of insufficient self-control/self-discipline and entitlement/grandiosity in the control group.

DISCUSSION

The main aim of the study was to investigate differences between convicted sexual offenders and general population males (control group) as to the type and severity of early maladaptive schemas.

The results obtained in the study showed that Individuals who have committed sexual offenses, compared to the control group, present significantly higher EMS severity within the following domains: *disconnection/rejection, impaired autonomy, other-directedness, overvigilance and inhibition.*

This result is supported by the study of Carvalho, Nobre (2014) indicating that convicted sex offenders compared to non-offenders presented significantly more schemas in the mentioned domains (excluding the domain of other-directedness) [13], and by the study of Manesh et al, (2010), in which rapists compared to healthy non-convict males were characterised by significantly higher schema intensity in the domain of disconnection/rejection and in the domain of impaired autonomy [11].

The results seem to illustrate well the genesis of the formation of a disordered personality as described by J. Young et al. (1999, 2014) within the schema therapy concept [8, 20, 21]. According to this concept, EMS shape the personality in an unusual (abnormal) way. At the same time, the stronger and more extensive they are, the more visible their influence is in the individual's behaviour [9]. In the context of the cited studies, these structures – in addition to their important role in the development of psychopathology – appear to contribute to sexual offending.

An interesting and counterintuitive result obtained in the discussed studies by non-convict males is the higher scores within the domain of *impaired limits* characterised by difficulty in achieving distant goals, low frustration tolerance and lack of responsibility. Having schemas in this domain leads to difficulties in respecting the rights of others, cooperating with others, and formulating commitments. The result is surprising given the research conducted by

Szlachcic et al (2015), in which schemas falling within this domain were found to be associated with attitudes most conducive to offending [22]. However, the cited research was conducted on a small sample (n=31) of sex offenders with mental disorders stationed in low – and maximum-security detention units.

The result we obtained can be interpreted in several ways. Firstly, this result may be related to the context of the study (incarceration vs. freedom). The study of offenders was conducted in prison isolation, which is a space characterised by order and discipline. Male inmates are subject to penitentiary interventions designed to encourage co-operation in the formation of socially desirable attitudes; they are educated and motivated to comply with legal and social norms. The boundaries set by these norms are clearly defined in the penitentiary and their observance provides offenders with privileges. On the other hand, violations of the rules, noncompliance with the instructions of guards or with penal regulations (i.e. under Article 117 of the Penitentiary Code) carry a punishment [23]. In contrast; the control group males were usually not subject to such strict rules of behaviour in their environment, especially when they may feel anonymous (as was the case in our study). A good case in point is our research on social media and the growing hate culture. The term does not have a legal or psychological definition, but the Polish language dictionary 'hate' as unfavourable, depreciating, discrediting, hateful content [24]. It is usually referred to in relation to content posted on the Internet, although in recent years the problem has also started to be present offline, e.g. in face-to-face conversation, but there it usually occurs in more subtle and less vulgarised forms (e.g. sarcasm). Sarcastic language is considered to be a common type of verbal aggression delivered under the cloak of politeness; however, it is – like any form of aggression - a violation of interpersonal boundaries, as its purpose is to hurt the other person. The domain of *impaired limits*, with its constituent schemas, occurs at a heightened rate in the non-clinical population, possibly signalling the emergence of difficulties related to the formation of internal boundaries concerning reciprocity and self-discipline. In a study by Huang et. al. (2023) conducted on internet-recruited men and

women impaired limits were found to be broadly associated with aggression, including overt psysical and verbal aggression, the expression of anger, and indirect aggression [25]. Within a clinical context, such difficulties are typically associated with the presence of narcissistic traits characterised by a dominant pattern of feelings of entitlement and grandiosity, as well as a deficit in empathy. As Morrison (2016) notes, a lack of empathy makes these individuals feel justified in using others for their own ends (e.g.: devaluing others to make themselves feel better) as a result of their sense of entitlement [26; p: 608]. The instrumental treatment of relationships, entitlement and exploitation of others in order to maintain an unrealistic self-image is quite popular nowadays in contrast to the phenomenon described by Karen Horney in the 1930s in her book: "The Neurotic Personality of Our Time". The current trend in literature and research is to consider narcissism as the predominant personality type of the present day and to consider it as a type of evolutionary strategy well suited to the challenges of modern-day life. The sources of the schemas that form part of this domain include either permissive families, in which the child has no boundaries set for them, and permissiveness dominates over realistic demands, or – alternatively – grandiose families that inculcate the child with a belief in their own uniqueness and superiority to others. The results reported by the control group may indicate transformations in our society towards declining morals, while also supporting the findings of researchers pointing to a spread of "an epidemic of narcissism in modern Western societies" [27]. According to Pilch (2018), the epidemic of narcissism is fostered by individualism and consumerism, educational methods – excessively permissive and designed to inculcate and reinforce in children their sense of uniqueness, while also telling them they have the 'right' to succeed – as well as social media and the celebrity cult that increases people's appetite for fame [28, p: 7].

A second interpretative possibility regarding the disparity in limits domain scores between the study groups is the schema assessment tool used in the study (the YSQ-S3-PL – self-report questionnaire), and in particular the fact that it was used for the first time on a population of prison inmates. Men surveyed under

confined conditions may tend to portray themselves in a socially favourable light. In the context of the acts they have committed (violation of sexual freedom) and in the context of their place of stay - prison - it might be a survival strategy for them to conceal their difficulties, since the deeds, for which they have been convicted, result in disapproval and even acts of repression from fellow inmates serving sentences for non-sexual offences [29]. However, with regard to the overall personality profile and having analysed the results in the field of the 'approval' and 'recognition-seeking', no cognitiveemotional pattern involving the need to impress or even to present oneself in a more favourable social light was revealed in either of the study groups. A third emerging explanation for this result may be related to the male inmates' interpretation of the questionnaire items through the lens of cognitive distortion. These men, like the respondents in the Mihailides et al. (2004) study, may tend to differentiate between a 'general entitlement schema' (as referred to in the questionnaire questions) and a 'sexual entitlement schema', so that their scores against the reference group may be significantly understated [30]. Finally, the result in question may also be interpreted as a sign of aggressive men's tendency to reinterpret unacceptable behaviour as acceptable', and/or as a recognition of their deviant behaviour as properly normative. That is the reason why their scores may naturally have been significantly skewed [31]. This phenomenon has been described more extensively in the neutralisation theory of Gresham Sykes and David Matza (1957) [32; p: 699] and, in our view, may justify the direction of the disparity in the domain of impaired limits between the groups studied. Finally, the result obtained may also be influenced by the relatively low coherence coefficient of the entitlement/pretentiousness schema compared to other schemas. This schema, alongside the insufficient control/self-discipline schema, falls within the domain of *impaired limits*, and the alpha value for this schema is 0.62.

The exploration of the EMS in a population of convicted male sexual offenders exhibits a distinctive cognitive profile. This profile differs significantly from the profile of the male control group. The study identified nine early maladaptive schemas in CSO.

Within the domain of disconnection/rejection, the effect of the following schemas was most pronounced in CSO's: abandonment and mistrust/abuse. These schemas were also identified in convicted sex offenders in foreign studies [12, 15]. It is known from Mącik's (2019) research that EMS resulting from relational disorders are associated with difficulties such as low relationship quality and greater feelings of disappointment in romantic relationships, a tendency to avoid intimacy, greater intensity of negative emotions and focus on negative aspects of events, low self-esteem and even anxiety and depressive traits [9]. Our result fits into the model of sexual abuse perpetration inspired by attachment theory [33-35] according to which relationships experienced in a insecure manner increase the likelihood of committing a sexual offence [37]. This relationship is related to a deficit in the skills necessary to achieve intimacy through a close relationship with another person. The lack of secure attachment during childhood between parent and child ill-equips the child for relationships in adulthood, and this leads to loneliness [33]. Consequently, individuals, out of emotional insecurity and largely through a sense of emotional loneliness, withdraw from relationships, resulting in a tendency towards hostile attitudes and aggressive interpersonal behaviour [35, 38]. Empirical studies have confirmed that CSO's characterised by an insecure attachment style are unable to develop intimate relationships and the resulting emotional loneliness makes them prone to aggression and (aggressive) sexual behaviour [39, 40]. Interestingly, despite the numerous differences between adolescent and adult delinquency reported in the literature, attachment anxiety and the lack of signs of social engagement seem to be universal, as they also plays a key role in juvenile sexual offenders [41, 42]. When investigating juvenile sex offenders for the impact of attachment style and interpersonal engagement, Miner et al (2010) found that attachment anxiety with a lack of misanthropic attitudes towards others seems to lead to isolation from peers and feelings of interpersonal inadequacy. According to the researchers, individuals with this particular combination of features may turn to children to satisfy their intimate and sexual needs [39, p:58].

Regarding the *mistrust/abuse* schema, which imply the expectation that people will abuse, mistreat or cheat, it has been found to be a cognitive consequence of physical, sexual and emotional maltreatment in early childhood [8, 21]. Developmental trauma resulting in an insecure attachment style is often treated as an important risk factor for sexual violence. The severity of this schema in the offenders in our study may support Marshall's (1989) observations that the failure of CSO's to develop secure attachment bonds in childhood results in their failure to learn the interpersonal skills and confidence necessary to achieve intimacy with other adults [35]. Interestingly, in the study of Chakhssi, Bernstein and Corine de Ruiter (2012), this schema (alongside the schemas of insufficient self-control and entitlement/grandiosity) contribute to the impulsive lifestyle of offenders with personality disorders and their antisocial behaviour associated with psychopathy [36].

In contrast, within the domain of impaired autonomy, the effect of the following schemas was strongest in offenders: failure, vulnerability to harm or illness and enmeshment/undeveloped self. These findings suggest that CSO feel dependent on others and vulnerable, which may make it difficult for them to enjoy interpersonal closeness. They find relationships troublesome because they have an inadequately developed self. They have a sense of 'emotional fusion with others,' which negatively affects the individuation process as well as the harmony of social development. In relationships, they feel a lack of opportunities and permanent inferiority to others, so they avoid challenging situations or do not apply themselves to a task, condemning themselves to failure from the outset. In foreign research, the failure schema has not yet been identified in the studied CSO. In contrast, the enmeshment/undeveloped self schema has been found to be characteristic of the population of non-preferential child sex offenders; while the *vulnerability* to harm schema has been found typical of rapists. In studies by Manesh et al[11], Noferesti et al [12] and Sigre-Leiros et al [14], this schema most strongly differentiates rapists from healthy, nonpreferential offenders.

Within the domain of *other-directedness*, the schema of *self-sacrifice and subjugation* dominates in the interviewed criminal offenders.

These structures are associated with submission, surrender and meeting others' needs at the expense of one's own needs. The result scored by the CSO's corresponds to data presented in the literature, according to which submissiveness is a source of aggression transferred to others in intimate relationships [43]. Clinical observations show that the above-mentioned schemas correlate with high levels of repressed anger and with aggression that can only be passively expressed for long periods of time [44]. Both the self-sacrifice schema – due to the fact that the people around them do not reciprocate their feelings – and the subjugation schema, which kills self-esteem and also prevents the establishment of truly satisfying relationships – lead to behavioural and functional disorders. In reference to Alexander Lowen's masochistic character structure theory, the self-sacrificing and subordinate person manifests his or her submissiveness only in external behaviour; intra-psychically he or she experiences extreme negative feelings, i.e. anger, resentment, hatred, hostility and superiority [45]. Over time, these feelings become the source of many forms of hostile (reactive) aggression directed at a specific person or representatives of a social group [41]. Our research demonstrates that sexual aggression can indeed be a form of reactive psychological pain, feelings of hurt and injustice felt by the individuals involved in sexual offending. As the source of these schemas lies in early victimisation experiences, it would also be important to check whether this pattern is not particularly characteristic of so-called 'abused abusers', i.e. offenders who have themselves been victims of sexual abuse in the past. For these individuals, the reproduction of their own (negative, traumatic, inadequate) experiences has important functions [46]. Dutch research shows that these schemas are particularly prevalent in offenders who commit crimes against minors [15]. In contrast, the isolated subjugation schema characterised preferential paedophiles in Portuguese studies [14], and rapists in Iranian studies [11].

Within the domain of *overvigilance/inhibition*, the following schemas were strongest in offenders: *punitiveness and pessimism*.

These results indicate that offenders have rigid internalised norms and deep beliefs in their own righteousness. They hold a deep conviction that they should be severely punished for their mistakes, poor performance and failure to comply with norms and standards. They often become angry and irritated because they lack patience, tolerance and are unable to accept the differences and weaknesses of human nature. They focus on the negative aspects of life. They do not allow themselves or others to make mistakes, as they are unable to forgive them.

Given the context, in which they internalise norms and standards, cognitive rigidity in the area of assimilated norms and standards may cause them increasing difficulties in everyday functioning. Particularly dangerous seem to be those norms and values that have been shaped and consolidated by their dysfunctional upbringing and the prison subculture, because, according to Szaszkiewicz (1997), they are often different, incompatible with or even contradictory to the principles of community life [47; p. 13].

Sexual aggression associated with cognitive inflexibility was particularly evident in rapists in the study by Sigre-Leiros et al. (2015). The severity of the self-punishment pattern was found to be significantly higher in them than in nonsex offenders and child molesters [14]. As is well known, the acts of rapists are more aggressive by definition. The legal determinant of the crime of rape is a higher intensity of aggression than in other crimes, as it is always associated with the transgression of the victim's body.

The pessimism (as well as failure) schema has not yet been identified in the population of convicted sex offender in foreign studies. These schemas are only characteristic in the Polish population of CSO's and indicate a dominant negative attitude of the male respondents with an accompanying sense of awkwardness. This result may be due to the methodology of the study itself (voluntary nature of the sample) or to cultural differences within early developmental pathology in offenders [48]. The formation of such schemas takes place in a climate of excessive fearfulness of the attachment figure (parent, carer), catastrophic thinking and a dichotomous view of the world, and as a result of parenting interventions that are not conducive to normal development (i.e. inappropriate support, inappropriate encouragement to cope with developmental tasks, devaluing the child's skills, presenting mistakes as stupidity [21; p: 28-29].

The above-described schemas characterising men incarcerated for sexual offences in Polish prisons illustrate the specific way in which they perceive themselves, others and the surrounding reality, and indicate the numerous difficulties faced by men convicted of sexual offences in Poland.

CONCLUSIONS

The results provide empirical evidence that Polish convicted sex offenders manifest intensified EMS. Individuals who have committed sexual offenses, compared to the control group, are characterised by a greater variety and intensity of early maladaptive schemas. These structures could be taken as a marker of forensic psychopathology. This confirms Jeffrey Young's general assumption that EMS are of great importance for the quality of an individual's functioning: the stronger and more entrenched the schemas are, the greater the difficulties they generate in a person's mature life.

The analyses conducted in the study further indicate the existence of a characteristic cognitive style of the offenders. In the group of convicted male sex offenders, 9 thematic areas of maladaptive schemas were identified, mainly focused on: insecure reliving and re-creating relationships, feelings of loneliness, lack of self-confidence and lack of self-esteem, and disbelief in one's abilities. The picture of cognitive-emotional schemas emerging from our study characteristic of the group of offenders studied may be useful for building therapeutic and preventive programmes. The clinical application of the results presented in this article delineates the following areas of therapeutic intervention [8]: helping to develop realistic expectations of relationship stability (disconnection/rejection); helping to manage distrust by focusing on building secure relationships with others and avoiding hurtful relationships (mistrust/abuse); helping to build skills and confidence (failure); working on increasing confidence in one's own coping skills (vulnerability to harm); working on strengthening one's ability to express one's spontaneous natural self, expressing opinions, decisions, preferences (impaired limits); working on being aware of one's own needs and feelings and also on the ability to express them (*subjugation and self-sacrifice*); helping to take a distance from one's views on life (*pessimism*); and working on modifying exaggerated standards as well as excessive criticism (*punitiveness*).

Strengths and weaknesses of the study

The results presented and discussed in the article were the first to address the prevalence of EMS in the convicted sex offenders population in Poland. The research was conducted on a large number of people. The analyses conducted were exploratory in nature, their aim being to discern cognitive psychopathological factors in the population of male inmates in Poland against a reference group.

The study presented here has a number of limitations, among which are: the cross-sectional nature of the survey, the voluntary nature of the sample, the use of self-report methods to measure variables (YSQ-S3-PL), which, in the context of the study site and the sample group, may be a space for simulation and insincere answers. Notably, the questionnaire does not include a subscale to measure the tendency of male respondents to falsify their answers. Another limitation of the study is the lack of detailed information on the demographics of the male respondents in the control group. The inclusion of data other than age, gender and education would have allowed for a deeper analysis of the differences between the study groups and a better understanding of the results obtained. In addition, the analyses did not take into account the links between schemas and did not explore their possible influence on offenders' sex offending behaviour; nor did they take into account the contribution of schemas to the genesis of offending behaviour, thus depriving the research result of an aetiological context.

In light of the above, the direction of future research is to conduct deeper analyses that will allow a multidimensional assessment of the impact of schemas (independent variables) on the sexual behaviour of the offenders studied (dependent variable). It also seems necessary to investigate the so-called mediating factors in the relationship between schemas and the act (schema modes, coping strategies used by CSO's, etc.)

and the relationship of schemas to sexual recidivism. It is known from the concept of Criminal Thinking Style' (CRS) by G. Walters that cognitive style can be a predictor of committing a first offence and/or a predictor of recidivism [49]. This theory is referenced in numerous foreign empirical studies. Another interesting line of research could be the study of EMS in a population of female sex offender inmates or in a group of juvenile sex offenders. Such research would capture individual differences in the factors studied by gender and age. Given the prevalence of psychopathy in the offender population [50, 51], it would also make sense to include the severity of psychopathic traits in the offenders studied in the analyses.

Continuation of the research carried out would be important in terms of gaining a deeper understanding of the nature of sexual violence, as well as a better understanding of the motives of the man's involved in sexual offending, and could serve to develop new, effective therapeutic and/or preventive programmes for dealing with CSO, which could have a significant impact on reducing the risk of recidivism.

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