Cognitive distortions of sexual victimizers of children and adolescents: associations with experiences in the family of origin, early maladaptive schemas, self-esteem and self-efficacy

Distorções cognitivas de vitimizadores sexuais de crianças e adolescentes: associações com experiências na família de origem, esquemas iniciais desadaptativos, autoestima e autoeficácia

Distorsiones cognitivas de los abusadores sexuales de niños y adolescentes: asociaciones con experiencias en la familia de origen, esquemas iniciales de desadaptación, autoestima y autoeficacia

Abstract:

Introduction: Cognitive distortions of child sexual offenders have been researched because they might be the foundation for tort conduct.

Objective: the aim of this study was to analyze cognitive distortions in individuals convicted for statutory rape against children and/or teenagers and verify connections with their family of origin, early maladaptive schema, self-esteem, and self-efficacy, as well as to assess the predictive power of these variables in the occurrence of cognitive distortions.

Method: this was a descriptive, correlational and explanatory research performed with 49 men currently serving time without parole. The following instruments were administered: Family Background Questionnaire, Young Schema Questionnaire, General Self-Efficacy Scale, Rosenberg Self-Esteem Scale, as well as a documentary review of the legal proceedings of the participants.

Results: the study revealed connections between cognitive distortions and substance abuse by the father (r=0.417; p=0.034), as well as vulnerability to harm (r=0.416; p=0.008), defectiveness (r=0.405; p=0.013), and grandiosity (r=0.339; p=0.040) schema. The vulnerability to harm schema was the only predictive variable for cognitive distortions, accounting for 73.4 % of the variance.

Conclusion: importance of analyzing cognitive distortions in child sexual victimizers and the possibility of schema therapy as an alternative treatment.

Keywords: cognitive distortions; sex offenders; early maladaptive schema; child; teenager.

Resumo:

Introdução: As distorções cognitivas de indivíduos que vitimizam sexualmente crianças e/ou adolescentes vêm sendo objeto de investigação, pois podem estar na base da conduta delitiva.

Objetivo: analisar as distorções cognitivas de indivíduos presos pelo crime de estupro de vulnerável contra crianças e/ou adolescentes e verificar associações com experiências na família de origem,

How to cite this article (APA):
esquemas iniciais desadaptativos, autoestima e autoeficácia, bem como avaliar o poder preditivo dessas
variáveis para a ocorrência de distorções cognitivas.

Método: Trata-se de uma pesquisa descritiva, correlacional e explicativa, realizada com 49 homens
cumprindo pena em regime fechado. Foram aplicados os instrumentos Family Background Questionnaire,
Young Schema Questionnaire, General Self-Efficacy Scale, Rosenberg Self-Esteem Scale e foi feito um levantamento
documental dos processos judiciais dos participantes.

Resultados: O estudo revelou associações entre as distorções cognitivas e o abuso de substâncias paterno
(r=0,417; p=0,034), assim como com os esquemas de vulnerabilidade ao dano (r=0,416; p=0,008), defectividade
(r=0,405; p=0,013) e grandiosidade (r=0,339; p=0,040). O esquema de vulnerabilidade ao dano foi a
única variável preditiva das distorções cognitivas, explicando 73,4 % da variância.

Conclusão: Importância da análise de distorções cognitivas em vitimizadores sexuais infantis e a possibilidade
da terapia dos esquemas como alternativa de tratamento.

Palavras-chave: distorções cognitivas; vitimizadores sexuais; esquemas iniciais desadaptativos; crianças;
adolescentes.

1. INTRODUCTION

Cognitive distortions of individuals serving sentences for sexual crimes against children and adolescents have been investigated in the field of psychology (Ferrão, 2016; Cepeda, & Ruiz, 2016; Reis, & Cavalcante, 2019; Steel, Newman, O’Rourke, & Quayle, 2020). According to Beck and Freeman (1993), cognitive distortions are ways of organizing the mind, in the sense of convincing the individual of something (e.g. person, object, rule) that he believes to be true. These thoughts are inaccurate and are usually used to reinforce negative ideas and/or emotions. According to empirical evidence (Blout, 2012; Irle, 2012; Laner, & Scortegagna, 2021), the presence of cognitive distortions in sexual victimizers of children and/or adolescents can facilitate, disinhibit and maintain several aggressive and antisocial behaviors.

Ward (2000) states that there are two types of cognitive distortions in sexual offenders. The first allows you to observe the beliefs and desires, while the
second is related to mechanisms of responsibility in relation to the processing of information (such as denial and minimization). Ward, Hudson, Marshall and Siegert (1995) exemplify, in their study, different cognitive distortions often found in sexual victimizers of children and/or adolescents, such as: “children often incite sexual activity and know what they want”; “children enjoy sexual contact with adults”; “sex is good for children”; “the needs of men are more important than the needs of children” and “men can do whatever they want with their children”.

The study by Cepeda and Ruiz (2016) revealed that the main cognitive distortions present in the study with sexual victimizers of children consist in thinking that if a minor does not oppose an adult’s sexual advances, it means that they want to have sex; that children are usually flirtatious because they want to have sex with adults; and that most children would like to have sex with an adult, without this experience being detrimental to their future. Sexual victimizers of children see them as beings eager to have sex with adults, believe that their attitudes are provocative and consider that sexual contact with an adult will not cause them any harm in the future (Santos, & Mesquita, 2019).

A study conducted in Rio Grande do Sul (Moura, & Koller, 2008) investigated the perception that the men accused of sexually raping children and/or adolescents have about the child and how they conceive what should be an ideal relationship between children and adults. Five men who were accused of sexually victimizing children between 7 and 13 years of age at the time of the complaint participated in this study. Four of the participants were compulsorily referred by Justice and one of them spontaneously sought to be evaluated. As a result, the researchers found a stereotypical and politically correct view of these men in relation to children, especially those who still remained in judicial custody. The authors also considered that the beliefs of these individuals can be really distorted, but it is necessary to clarify that such beliefs are not related only to cognitions, because if there was a way to correct this cognition, the abuses would tend to disappear.

There may be emotional difficulties (such as reduced empathy processes) related to the maintenance of such cognitive distortions (López, & Ríos, 2014; Morrow, 2020). The study by Nascimento (2017) points out that cognitive distortions related to the practice of sexual victimization occur more frequently in extrafamily victims than in intrafamily victims. According to the author, individuals who promote abusive acts outside the family show a greater tendency to have beliefs that facilitate the abusive act.
Lonsway and Fitzgerald (1994) categorize cognitive distortions of sexual victimizers of children into three types: 1) attempting to justify abusive behavior; 2) aiming to minimize and ignore abusive behavior; 3) seeking to attribute blame to the victim. Some authors (Carvalho, 2011; Santos, & Mesquita, 2019) explain that the thoughts, perceptions, beliefs and ideas created by these individuals function as obstacles for them to take responsibility for their actions. Studies suggest that perpetrators of child sexual abuse have many cognitive distortions, involving rationalization, justification and minimization (Carvalho, 2011; Reis, & Cavalcanti, 2018; Reis, & Cavalcante, 2019).

Regarding the rooted beliefs that facilitate the commission of sexual violence, Ciardha and Gannon (2011) indicate that they constitute risk factors in intrafamily child sexual abuse. Pereira, Maciel, Dias, Alexandre, Oliveira, & Pimentel (2019) point out that these are beliefs/attitudes that violate the norms (implicit or explicit) shared and accepted by a group of individuals or community and that show to be related to the maintenance of the offense. In the study by Wakeling, Webster, Moulden and Marshall (2007), in which subjects who sexually victimized daughters and stepchildren were interviewed, most had cognitive distortions that facilitated abusive action. Cognitive distortions are considered as an extremely relevant factor in the etiology and maintenance of sexual behavior disorders.

Some authors (Ward, & Keenan, 1999; Ward, & Siegert, 2002) suggest that cognitive distortions are a direct consequence of the underlying schemas (or implicit theories) and that these would direct the processing of social information for the selection and integration of congruent information with schemas, favoring the rejection of information that questions their validity. The underlying schemas are usually developed in childhood and guide how sexual victimizers of children and/or adolescents interpret the behavior of individuals, children in general and also their victims.

Regarding the schemas, Young (1990) conceives the concept of early maladaptive schemas (EMSs), explaining that these are characterized by broad and generalized patterns, developed in early childhood or adolescence, as representations of the environment. They are related to the person themselves or with other people and are made up of memories, emotions, cognitions and bodily sensations. EMSs result from unrequited emotional needs in childhood or adolescence and can be dysfunctional according to their activation (Young, Klosko, & Weishaar, 2003). The classification of domains and their schemas are shown in Table 1.
<table>
<thead>
<tr>
<th>DOMAIN</th>
<th>SCHEMAS</th>
<th>DESCRIPTION OF SCHEMAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain I - Disconnection and Rejection: characterized by an inability to form secure bonds and with negative social experiences. In this domain, people often exhibit characteristics of instability, abuse, coldness, rejection or isolation from the outside world.</td>
<td>Abandonment</td>
<td>Fear of being abandoned and losing emotional support.</td>
</tr>
<tr>
<td></td>
<td>Mistrust/Abuse</td>
<td>Expectation of being hurt, abused, betrayed and manipulated.</td>
</tr>
<tr>
<td></td>
<td>Emotional Deprivation</td>
<td>Expectation of not being satisfied by others in terms of emotional support; absence of attention and understanding.</td>
</tr>
<tr>
<td></td>
<td>Defectiveness</td>
<td>Feeling unwanted, inferior or worthless about important things.</td>
</tr>
<tr>
<td></td>
<td>Social isolation</td>
<td>A sense of isolation from the world; a sense that one is undesirable and uninteresting.</td>
</tr>
<tr>
<td>Domain II - Impaired Autonomy and Performance: difficulty to differentiate from parental figures and to function independently. The family is overprotective and cannot stimulate the child to perform competently outside the family.</td>
<td>Dependence/Incompetence</td>
<td>Inability to take on daily responsibilities without the help of others.</td>
</tr>
<tr>
<td></td>
<td>Vulnerability to harm</td>
<td>Heightened fear of an impending catastrophe.</td>
</tr>
<tr>
<td></td>
<td>Enmeshment</td>
<td>Feeling of emotional involvement with others, to the detriment of personal autonomy and self-development.</td>
</tr>
<tr>
<td></td>
<td>Failure</td>
<td>Belief that they will inevitably fail in front of peers and in areas related to personal achievement.</td>
</tr>
<tr>
<td>Domain III - Impaired Limits: lack of internal limits and responsibilities with others. They exhibit selfishness and irresponsibility. Overly permissive or tolerant families.</td>
<td>Grandiosity</td>
<td>Belief of superiority with entitlement to special privileges</td>
</tr>
<tr>
<td></td>
<td>Insufficient Self-Discipline</td>
<td>Great difficulty or refusal to exercise self-control and little tolerance to frustration in achieving their goals.</td>
</tr>
<tr>
<td></td>
<td>Subjugation</td>
<td>Submission to third party control to avoid anger, retaliation and abandonment.</td>
</tr>
<tr>
<td></td>
<td>Self-sacrifice</td>
<td>Excessively targeting the needs of others, over their own good.</td>
</tr>
<tr>
<td></td>
<td>Approval-seeking</td>
<td>Excessive search for approval, recognition or attention on the part of others.</td>
</tr>
<tr>
<td>Domain IV - Other-Directedness: excess in trying to meet the needs of others. In families, the emotional needs and desires of parents were valued more than the demands of the child.</td>
<td>Negativity/Pessimism</td>
<td>Extreme fear of making mistakes, due to excessively valuing the negative aspects of life.</td>
</tr>
<tr>
<td></td>
<td>Emotional Inhibition</td>
<td>Excessive inhibition, no spontaneity to share feelings and to establish communication as a way to avoid disapproval of others.</td>
</tr>
<tr>
<td></td>
<td>Unrelenting Standards</td>
<td>Belief that you have to live up to very high standards of behavior and performance.</td>
</tr>
<tr>
<td></td>
<td>Punitiveness</td>
<td>Belief that one should be severely punished for committing any mistake.</td>
</tr>
</tbody>
</table>

Source: prepared by the author based on Paim (2014).
Regarding early maladaptive schemes and sexual victimization of children and adolescents, Carvalho and Nobre (2013) compared a group of rapists, another group of sexual abusers of children and a group of non-offenders. The results identified that participants convicted of child sexual violence presented more schemas of the disconnection/rejection domain, impaired autonomy and performance, and also more schemas in the overvigilance and inhibition domain than non-offenders. As for rapists, they present more schemas of the domain of impaired autonomy/performance than non-offenders. The differences also revealed that child sexual abusers showed greater activation in the negativity/pessimism schema than rapists. The results of this study suggest that the early maladaptive schemas are associated with aggressive sexual behavior, thus emphasizing the evidence that the approach focused on the schemas by Young (1990) may be relevant to understand the phenomenon of sexual violence against children and/or adolescents.

The study by Carvalho (2011) aimed to investigate predisposing factors for sexual assault in a sample of 32 convicts of rape and 31 convicts of sexual abuse of children. According to the study, individuals convicted of sexual abuse of children presented more schemas related to the themes of mistrust/abuse, vulnerability to harm and schemas in the domain of impaired autonomy and performance.

The fact that that some victimizers have suffered trauma and sexual violence in childhood can also be considered a factor often related to the process of sexual victimization of children and/or adolescents (Costa, Cavalcante, & Reis, 2018; Silva, 2018; D’Urso, Petruccelli, Constantino, Zappulla, & Pace, 2019), which would even justify the development of early maladaptive schemas. Reichenheim, Souza, Moraes, Jorge, Silva and Minayo (2012) draw attention to the fact that the emergence of sexual violence can occur both by socio-environmental factors, and by cultural variables associated with the victimizer’s family of origin. Situations such as experiencing sexual victimization and absence of an environment of care and affection can cause the constitution of a sexual offender (Nascimento, 2017). Abusive experiences and unstable relationships in childhood disorganize the security in attachment relationships, resulting in maladaptive models of beliefs, generating unsafe bonds throughout life (Young, Klosko, & Weishaar, 2003; Pressi, & Falcke, 2016), and contributing to the establishment of psychopathological frameworks (Waikamp, & Serralta, 2018).

In the researches conducted by Carvalho and Nobre (2013) and Dennison and Leclerc (2011), the main risk factors for the constitution of sexual abusers
of children and adolescents were those that refer to the existence of an unstable family structure, such as parental substance abuse, parental crime, adolescent mothers, marital discord, family violence, parental neglect and abuse, lack of parental supervision and control, severe or inconsistent discipline, and lack of parental support or involvement. These findings corroborate the research of Dennison and Leclerc (2011) and Santos and Mesquita (2019), which pointed out that family aspects such as deficient parental practices, parental instability and loss of parents may be risk factors for committing sexual assault.

The damage from early experiences can impact on many aspects of life, including the assessment that individuals have of themselves. In this sense, low self-esteem (Becerra-García, 2013), depression and feelings of maladaptation and vulnerability (Lâ-branca, 2012) are common in sexual aggressors of children and/or adolescents.

Self-esteem constitutes an evaluative aspect of self-concept and composes a set of thoughts and feelings concerning oneself. Therefore, it approaches a positive (self-approval) or negative (depreciation) direction of oneself, characterizing the representation of feelings of self-worth (Kernis, 2005). It tends stabilize over time and in different contexts in adult life, positively correlating to life satisfaction (Diener, & Diener, 1995). The study by Scortegagna and Amparo (2013) investigated personality characteristics of sexual offenders of children and/or adolescents and concluded the indication of low self-esteem, as well as deficits in the participants’ self-image.

In the same direction, self-efficacy, defined as a judgment that individuals make about their own abilities to perform something efficiently (Bandura, 1994), interferes with how they will face the challenges that present themselves in a more or less adaptive way, since having the belief of being able predisposes to the expectation of success (Pajares, & Olaz, 2008). Self-efficacy beliefs, in this sense, influence personal choices, dedicated effort to fulfilling tasks, how frustrations and failures are endured, as well as resistance to adversities (Sousa, & Bardagi, 2013), being important in determining the adaptive personal trajectory or, on the other hand, in perpetuating cognitive distortions.

Pollock (1996) points out that committing sexual abuse could lead to a low self-efficacy perception, increasing the likelihood of further offenses. The author found that a subscale of a specific self-efficacy test (related to appreciation and expectations of rewards for dealing with high-risk situations),
along with the speed of producing a coping response in a high-risk situation, provided 89% of discrimination between sexual victimizers who relapsed and those who did not.

Based on these assumptions, the objective of this study was to analyze cognitive distortions and verify associations with experiences in the family of origin, early maladaptive schemas, self-esteem and self-efficacy of individuals who are in closed prison regime, convicted for the crime of rape of those who cannot consent (art.2017-A, CP), against children and/or adolescents. In addition, we sought to identify the predictive variables of cognitive distortions of victims, considering the other variables studied (experiences in the family of origin, early maladaptive schemas, self-esteem and self-efficacy).

2. METHOD

2.1. Participants
The sample consisted of 49 men, convicted of the crime of rape of those who cannot consent (art. 217-A, CP), with experiences of prosecution for intra-and extra-family crimes and who are in judicial custody, serving sentence in closed regime, in a prison of the Industrial City of the municipality of Curitiba/PR. The mean age of the participants was 42.96 years (SD=10.64), the majority being single (53.1%); with children (82.2%) and with complete or incomplete elementary school (63.8%). The monthly income at the time of conviction ranged from R$ 900,00 to R$ 20.000,00, with an average of R$ 3.100,42 (SD = 3752,754). Sentences ranged from 4 to 220 years (m = 27,1; SD = 33.313) and most were convicted of intrafamilial child sexual abuse (54.5%), with girl victims (74.3%) and with carnal conjunction as the most frequent method for victimization (38.2%).

2.2. Instruments
• Sociodemographic and Judicial Data Sheet: containing questions about age, monthly income, education, profession, marital status of the participants and if they have children, as well as information about the crime and their judicial status and also about psychiatric hospitalizations, chemical dependence, diagnosis and treatment for mental disorders.
• Family background Questionnaire - FBQ (Melchert, 1998) (translated into Portuguese by Falcke, 2003): self-applicable instrument, containing 179 questions, in a Likert scale of five points. The scale is for adults and aims to investigate memories of experiences in the family of origin up to the age of 18 years. For this study we used the
subscales: physical neglect (seven items), physical abuse: maternal (two items) and paternal (two items), sexual violence (five items), substance abuse: maternal (five items) and paternal (five items), psychological maladjustment: maternal (ten items) and paternal (ten items), and parental alliance (fifteen items) (Melchert, 1998). This instrument presents a Cronbach’s Alpha coefficient of 0.76 e 0.96 between the different subscales and 0.98 as the total coefficient of the scale, indicating that the measurement of said dimensions is suitable. Translated into Portuguese by Falcke (2003), it obtained reliability indices of 0.99 for total range and between 0.40 e 0.95 for the subscales.

- Young Schema Questionnaire - YSQ-S3 (Young, 2003) (translated and adapted into Portuguese by Rijo, 2009): composed of 90 items (reduced version), which evaluate 18 Early Maladaptive Schemas (EMSs), mapped by the sum of the results of each group of five questions. There are favorable results regarding the internal consistency of the scale and also discriminative sensitivity, considering the differences between clinical and non-clinical groups (Cazassa, & Oliveira, 2008).

- General Self-Efficacy Scale - GSE (Schwarzer, & Jerusalem, 1995): a self-report instrument that evaluates the feeling of personal competence to deal with stressful situations. It consists of 10 items answered on a four-point likert scale (1 - by no means true; 2 - hardly true; 3 - moderately true; and 4 - exactly true). The result derives from the sum of the items, and a total score between 10 and 40 points can be obtained. All items are formulated positively, so high values on the scale indicate a high overall self-efficacy.

- Rosenberg Self – Esteem Scale - SES (Rosenberg, 1979): 10-item self-report instrument for assessing global self-esteem. In the initial formulation, the scale of responses had four points, but the Costa format (2013) was followed, with six points ranging from “strongly agree” to “strongly disagree”. For the scale score, items 1, 2, 4, 6 and 7 are reversed and items 3, 5, 8, 9 and 10 remain with the original quote. The result derives from the sum, ranging from 10 to 60 points, and higher scores indicate better self-esteem.

- Cognitive Scale (Abel, Gore, Holland, Camp, Becker, & Rathner, 1989): self-applicable instrument of 29 items, with distorted beliefs or cognitions related to sexual assault behavior. It is answered on a likert scale of 5 points, varying between “totally agree” and
“totally disagree”. The result derives from the sum of the items, and lower scores are indicators of greater cognitive distortion. The original instrument had a cronbach’s alpha of 0.76 in a sample of 240 paraphilic violators of minors, 48 non-victimizing paraphiliacs of minors and 86 non-paraphiliacs.

2.3. Research and ethical procedures

We made contact with the research site, a penitentiary located in the Industrial City of Curitiba/PR. Then, the State Penitentiary Department of Paraná (DEPEN) was contacted, to analyze the request for research. After obtaining the letter of consent, the project was submitted to the evaluation of the Ethics Committee of the Universidade do Vale do Rio dos Sinos (protocol 2.662.961). To carry out this research, the head of the institution signed the term of transfer of information-TCI, which authorized the use of data from legal proceedings. Participants were invited to respond to the survey voluntarily, respecting the criterion of serving a closed sentence for the crime of rape of those who cannot consent (art.217-A, C) against children and adolescents. Individuals who refused to participate, gave up, were mobilized (they were given support) or were in some way impeded (due to legal issues or any other situation), were replaced by other volunteers, always respecting them, trying to generate as little psychological damage as possible. Participants signed the free and informed consent form (FICF) and all their rights were respected, preserving their identities, guaranteeing the right to not answer any questions or to interrupt their participation at any time.

2.4. Data Analysis

Data analysis was performed using the Statistical Package for Social Science (SPSS), version 22.0. Descriptive analyses (frequency and percentages) were performed to characterize the sample, Spearman correlation analyses to verify association between variables, and multiple regression analysis (stepwise method) to verify the predictive power of independent variables (experiences in the family of origin, early maladaptive schemas, self-esteem and self-efficacy) in the levels of cognitive distortions of participants.

3. RESULTS

The evaluation of cognitive distortions in sexual victimizers is a complex task, considering that there is the possibility of manipulation of information (Moura, & Koller, 2008). In this study, the data presented in Table 2 were obtained:
### Table 2.
Percentage of responses on the Cognitive Scale

<table>
<thead>
<tr>
<th>Statement</th>
<th>TOTALLY AGREE</th>
<th>AGREE</th>
<th>NEUTRAL</th>
<th>DISAGREE</th>
<th>TOTALLY DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) If a child looks at between the legs of an adult, it means that they know and like what they are looking at</td>
<td>0,0</td>
<td>0,0</td>
<td>12,2</td>
<td>20,4</td>
<td>67,3</td>
</tr>
<tr>
<td>2) It’s okay for a man to have sex with their child or stepchild if his wife or girlfriend doesn’t like sex</td>
<td>0,0</td>
<td>0,0</td>
<td>2,0</td>
<td>14,3</td>
<td>67,3</td>
</tr>
<tr>
<td>3) A 14 years old child or younger can make their own decision on whether to have sex with an adult or not</td>
<td>0,0</td>
<td>12,2</td>
<td>10,2</td>
<td>14,3</td>
<td>63,3</td>
</tr>
<tr>
<td>4) If a minor does not oppose the sexual advances of an adult, it means that they want to have sex with adults</td>
<td>2,0</td>
<td>0,0</td>
<td>18,4</td>
<td>16,3</td>
<td>63,3</td>
</tr>
<tr>
<td>5) If a child flirts with an adult, it means they want to have sex with adults</td>
<td>0,0</td>
<td>0,0</td>
<td>16,7</td>
<td>12,5</td>
<td>70,8</td>
</tr>
<tr>
<td>6) Sexual relations between a minor and an adult will not cause emotional problems to the minor</td>
<td>6,1</td>
<td>12,2</td>
<td>10,2</td>
<td>16,3</td>
<td>55,1</td>
</tr>
<tr>
<td>7) Having sex with a child is a good way for an adult to teach the child about sex</td>
<td>0,0</td>
<td>4,1</td>
<td>0,0</td>
<td>8,2</td>
<td>87,8</td>
</tr>
<tr>
<td>8) If an adult tells their child (stepchild or close relative) what to do sexually and the child does it, it means that they will always do it because they really like and want it</td>
<td>0,0</td>
<td>0,0</td>
<td>16,3</td>
<td>20,4</td>
<td>63,3</td>
</tr>
<tr>
<td>9) When a child has sex with an adult, this helps the child to learn how to relate to adults in the future</td>
<td>4,1</td>
<td>2,0</td>
<td>2,0</td>
<td>18,4</td>
<td>73,5</td>
</tr>
<tr>
<td>10) Most children would like to have sex with an adult, and this would not bring harm in the future</td>
<td>0,0</td>
<td>12,2</td>
<td>8,2</td>
<td>10,2</td>
<td>69,4</td>
</tr>
<tr>
<td>11) Children do not tell others about the sexual relations they have with one of the parents (or adult), because they really like and want to continue</td>
<td>2,0</td>
<td>4,2</td>
<td>14,6</td>
<td>16,7</td>
<td>62,5</td>
</tr>
<tr>
<td>12) Our society will realize that sexual relations between adults and children are normal</td>
<td>0,0</td>
<td>4,1</td>
<td>4,1</td>
<td>20,4</td>
<td>71,4</td>
</tr>
<tr>
<td>13) An adult can know whether having sex with a child will hurt the child in the future</td>
<td>40,8</td>
<td>18,4</td>
<td>18,4</td>
<td>2,0</td>
<td>20,4</td>
</tr>
<tr>
<td>14) If an adult caresses a child’s body without touching his genitals, it is not really sexual intercourse</td>
<td>8,2</td>
<td>14,3</td>
<td>26,5</td>
<td>14,3</td>
<td>36,7</td>
</tr>
<tr>
<td>15) An adult can show love and affection to the child by having a sexual relationship with them</td>
<td>2,1</td>
<td>0,0</td>
<td>4,2</td>
<td>14,6</td>
<td>79,2</td>
</tr>
<tr>
<td>16) It is preferable to have sex with a child than to have an affair</td>
<td>0,0</td>
<td>0,0</td>
<td>6,1</td>
<td>20,4</td>
<td>73,5</td>
</tr>
<tr>
<td>17) If an adult just stroked or touched the genitals of a minor, it will not hurt the child</td>
<td>6,1</td>
<td>16,3</td>
<td>6,1</td>
<td>18,4</td>
<td>53,1</td>
</tr>
<tr>
<td>18) A child will never have a sexual relationship with an adult unless it is at least desired</td>
<td>6,3</td>
<td>2,1</td>
<td>27,1</td>
<td>12,5</td>
<td>52,1</td>
</tr>
<tr>
<td>19) Children know that an adult will still like them, despite refusing to have sex with them</td>
<td>12,5</td>
<td>12,5</td>
<td>20,8</td>
<td>22,9</td>
<td>31,3</td>
</tr>
<tr>
<td>20) When a child asks an adult about sex, it means that they want to see the sexual organs of adults or have sex with them</td>
<td>0,0</td>
<td>0,0</td>
<td>6,4</td>
<td>27,7</td>
<td>66,0</td>
</tr>
<tr>
<td>21) If children have sex with an adult, this prevents them from being afraid of sex in the future</td>
<td>12,2</td>
<td>16,3</td>
<td>16,3</td>
<td>16,3</td>
<td>38,8</td>
</tr>
<tr>
<td>22) When a child is not wearing clothes and walking around an adult, it means that the child is trying to excite him</td>
<td>2,1</td>
<td>0,0</td>
<td>12,5</td>
<td>25,0</td>
<td>60,4</td>
</tr>
<tr>
<td>23) A father’s relationship with their, or another, child is strengthened when they have sex</td>
<td>0,0</td>
<td>2,0</td>
<td>16,3</td>
<td>6,1</td>
<td>75,5</td>
</tr>
<tr>
<td>24) If a child has sex with an adult, when growing up they will think of it as something positive</td>
<td>4,1</td>
<td>0,0</td>
<td>16,3</td>
<td>12,2</td>
<td>67,3</td>
</tr>
</tbody>
</table>
25) Sexual relations between a child and an adult do not cause emotional problems for the child
26) When children watch an adult masturbate, this helps the child learn about sex
27) An adult can know if the amount of sex between him and a child will hurt the child later
28) If an adult is attracted to sex with children, they should solve the problem on his own and not talk to professionals
29) There is no good treatment for child sex abusers

It is noteworthy that the information regarding cognitive distortions suggests that, in most items, participants answered what would be considered socially appropriate. However, it is clear that the higher levels of the participants’ compliance occurred in relation to the issues targeted at the sexuality of children and adolescents, and what the consequences of sexual contacts with adults are for the future of the child, such as, for example, the items that suggested: “If children have sex with an adult, this prevents them from being afraid of sex in the future” and “Sexual relations between a child and an adult do not cause emotional problems for the child”; “Sexual relations between a minor and an adult will not cause emotional problems to the minor”, in which the distribution of the answers was divided in a more balanced way. Table 3 shows the correlations obtained between the measurement of cognitive distortion and the other variables analyzed.

**Table 3.**
Correlations with cognitive distortion

<table>
<thead>
<tr>
<th>Experiences in the family of origin</th>
<th>COGNITIVE DISTORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paternal physical abuse</td>
<td>-0.025</td>
</tr>
<tr>
<td>Maternal physical abuse</td>
<td>0.187</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>0.053</td>
</tr>
<tr>
<td>Physical neglect</td>
<td>-0.053</td>
</tr>
<tr>
<td>Paternal substance abuse</td>
<td>0.417*</td>
</tr>
<tr>
<td>Maternal substance abuse</td>
<td>-0.281</td>
</tr>
<tr>
<td>Paternal psychological maladjustment</td>
<td>0.076</td>
</tr>
<tr>
<td>Maternal psychological maladjustment</td>
<td>-0.014</td>
</tr>
<tr>
<td>Parental alliance</td>
<td>0.022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Early Maladaptive Schemas</th>
<th>COGNITIVE DISTORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Deprivation Schema</td>
<td>0.014</td>
</tr>
<tr>
<td>Abandonment Schema</td>
<td>0.128</td>
</tr>
<tr>
<td>Mistrust/abuse Schema</td>
<td>0.273</td>
</tr>
<tr>
<td>Social Isolation Schema</td>
<td>0.285</td>
</tr>
<tr>
<td>Defectiveness Schema</td>
<td>0.405*</td>
</tr>
<tr>
<td>Failure Schema</td>
<td>0.109</td>
</tr>
<tr>
<td>Dependency/Incompetence Schema</td>
<td>0.091</td>
</tr>
<tr>
<td>Vulnerability to Harm Schema</td>
<td>0.416**</td>
</tr>
<tr>
<td>Entanglement Schema</td>
<td>0.109</td>
</tr>
</tbody>
</table>
It is observed in the table that the level of cognitive distortion in the sex victimizers correlated significantly and positively with the experience in the family of origin of paternal substance abuse (r=0,417; p=0,034), as well as the defectiveness schema (r=0,405; p=0,013), vulnerability to harm (r=0,416; p=0,008), and grandiosity (r=0,339; p=0,040).

In the evaluation of the predictive power of independent variables on cognitive distortion levels, it was found, through multiple regression analysis (stepwise method), that a single variable (vulnerability to harm schema) was shown to be predictive of cognitive distortions. The model was significant (Z=11.010; p = 0,029) and provided an explained coefficient of variance (R2) of 0,734, which determines that the selected independent variable explained 73.4 % of the cognitive distortions presented.

4. DISCUSSION

This study aimed to analyze cognitive distortions and verify associations with experiences in the family of origin, early maladaptive schemas, self-esteem and self-efficacy of individuals who are serving sentence for the crime of sexual abuse against children and/or adolescents. It was found that, in the assessment of cognitive distortions, there may have been a kind of answer by social desirability, as previously observed in another study (Moura, & Koller, 2008), considering that the participants have already been questioned numerous times and serve sentence for the crime, they would have more clarity of what is considered socially right or wrong. Even so, it is noteworthy that the answers show a more balanced distribution in the levels of agreement when the beliefs involve the sexual manifestations of children and the consequences of the sexual interaction with adults in the future of the children. Another fact that may have motivated lower levels of cognitive distortions was the fact that the scale used the term “child”. When answering the questionnaire, many victims questioned whether the questions referred to young children and answered considering this age group. In this sense, it can be inferred that if the scale addressed older children or adolescents, the level of cognitive distortion would be higher.
The level of cognitive distortion of sexual victimizers correlated significantly and positively with the experience of paternal substance abuse in the family of origin. The experience of living with a parent who abuses chemical substances can have consequences for the development of an individual (Marafiga, & Falcke, 2020). Pressi and Falcke (2016) and also Young, Klosko and Weishaar (2003) point out that unstable relationships in the childhood tend to disorganize the security in attachment relationships, which can result in maladaptive models of beliefs, producing insecure attachments throughout the life of the individuals. A parent with abusive behavior can make the individual predisposed to develop cognitive distortions directed to the relationship with other people, especially in relation to the lack of social skills and of emotional self-regulation. These distortions lead to erroneous ideas in interpersonal relations, making it difficult to establish future relations. The lack of social skills and emotional self-regulation favors that the romantic relationships of these individuals result in rejection, leading to a decrease in self-esteem and thus developing negative feelings and emotions (Ward, Polaschek, & Beech, 2006).

From these experiences in the family of origin, with unmet child needs, the early maladaptive schemas emerge (Young, Klosko, & Weishaar, 2003). The cognitive distortions correlated with the patterns of defectiveness, grandiosity and vulnerability to harm. The defectiveness schema refers to the feeling of inferiority or failure, in which the individual feels that he is not wanted and does not deserve the love of others. This schema makes up the domain of distancing and rejection, which encompasses individuals who are characterized by the inability to create stable bonds with others, with a perception that their individual needs for security, protection, stability, love and respect will not be met. It can be assumed that, in these individuals, the personal difficulty of creating bonds projects on children the greatest potential for acceptance and recognition, given that, according to the literature (Finkelhor, 1984; Howitt, 2009; Chudzik, & Réveillère, 2013; Scortegagna, & Amparo, 2013; Zilki, Aguiar, Perissinotto, & Resende, 2020), a large portion of the sexual victimizers of children are immature, emotional, and assume that these individuals have emotional needs that are met in the context of their relationships with the children.

In relation to the grandiosity schema, this is related to the feeling that the individual is unique, grandiose, superior to other people. The individual feels that he has special rights or that he has no obligation to comply with social rules. There is a superiority that is not covered by the rules, nor by respect for
others. There is no tolerance for not having what they want and they present an exaggerated focus on superiority to achieve control. There is an exacerbated need to impose their presence and their point of view, leading to a lack of empathy (Moura, & Koller, 2008). This schema is linked to the domain of impaired limits, which is characterized by insufficient internal barriers, lack of discipline and respect for others, being associated with disinhibition in relation to social norms, in this case, referring to sexual relations with children and/or adolescents, generating difficulty in controlling their sexual attraction for them (Howitt, 2009). The power discrepancy is what most adequately characterizes this complex relationship between the victimizing adult and the child and/or adolescent, sexually victimized, since the aggressor is in a more advanced psychosexual stage of development than the victim who, in turn, has no conditions for the self-determination and consent related to sexual interactions with adults (Habigzang, Koller, Azevedo, & Machado, 2005). This data indicates the difficulty of the victimizing individual in considering childhood as a stage of development, and the child as a subject deserving of respect and consideration (Azevedo, & Guerra, 2011).

Another fact to be emphasized is that the vulnerability to harm schema was positively associated with cognitive distortions, and was also presented as the only variable with predictive power for the occurrence of cognitive distortions. This schema is about the exaggerated fear of suffering a physical or mental damage, with which the individual does not feel prepared to cope. This schema is linked to the domain of impaired autonomy and performance, which includes individuals who present an obstacle when finding themselves as autonomous and independent of their families of origin. Relating to this data, the study by Carvalho and Nobre (2013) found a higher number of schemas related to the domain of impaired autonomy and performance in sexual offenders of children and adolescents than in the group of non-offenders. The vulnerability to harm schema may be directly related to the experiences in the family of origin of these individuals, since many reported the occurrence of substance abuse by the father, in addition to experiences of victimization, both physical, sexual and psychological, common in families with substance abuse (Reichenheim et al., 2012; Carvalho, & Nobre, 2013; Ferreira, 2020; Fonseca, Setubal, & Costa, 2019). In addition, Finkelhor (1984), as well as Howitt (2009), discuss the emotional fragility of the victimizer related to immaturity, need for domination/control, narcissism and the stage of development of the child and/or adolescent, which ultimately justifies the childish emotional needs of the victimizers, which are provided in relations with children and/or adolescents. This data is linked to the vulnerability to
harm schema presented in this study and also to the findings of Carvalho (2011), especially when related to the need for mastery/control, since a child and/or adolescent, theoretically, due to their stage of psychological development, would not present substantial threat in the interaction.

Finally, it should be emphasized that the sample composed in this study is of individuals who are in prison. Considering that EMSs develop in childhood, when individuals enter the prison, they can have new experiences and there is the possibility of activation of these schemas, giving rise to the mechanism of dysfunctional coping (Ferrão, 2016; Reis, 2016). The dysfunctional content of schemas arises in circumstances later in life. When EMSs are activated, one experiences a childhood situation taken by the invasion of emotions and bodily sensations. Thus, a reaction of dysfunctional coping follows to adapt the individual to the schema, so that it is possible to deal with the intense emotions that the schema activates. These dysfunctional coping strategies correspond to overcompensation, avoidance and resignation. By overcompensating, the individual fights against the schema, behaving and relating as if the opposite of the schema were true (e.g. if he himself was the victim of sexual abuse in childhood, he will abuse others). Schema avoidance as a coping strategy is understood as a way to prevent the schema from being activated. The individual seeks to avoid situations that activate the schema (e.g., avoiding intimate relationships). By succumbing to a schema, the individual does not try to avoid it, he accepts it as true. In this case, they feel the emotional suffering of the schema and act in such a way as to confirm it (Young, Klosko, & Weishaar, 2003).

5. CONCLUSION

The findings of this study reveal an association between cognitive distortions of sexual victimizers and experiences in the family of origin (paternal substance abuse), as well as with early maladaptive schemas (defectiveness, grandiosity and vulnerability to harm), being the vulnerability to harm schema predictive of the occurrence of cognitive distortions. Based on these results, the Therapy Focused on Schema for sexual victimizers of children is suggested as a therapeutic possibility, since the treatment aims at the conscious control of the schemas, in order to weaken the emotions, memories, cognitions and behaviors associated with them, such as sexual abuse. This intervention encompasses cognitive, experiential, behavioral and interpersonal strategies in order to modify the mechanisms of dysfunctional coping. Furthermore, in addition to working with an intervention proposal, this study also reveals important information about the prevention of crimes.
that involve sexual violence against children and adolescents, especially by revealing the associated variables (experiences in the family of origin, self-efficacy and self-esteem). If these variables are well managed, they become significant early prevention tools.

The limitations of this study include the use of the cognitive distortions questionnaire, since it presents affirmations not considered as proper cognitive distortions (ex0,13. An adult can know whether having sex with a child will hurt the child in the future; 27. An adult can know if the amount of sex between him and a child will hurt the child later), generating a need for further explanations, including at the time of application for the sample. For future studies, it is recommended to use a version of the scale with the sentences referring to young people, as well as the development of other means of assessment and measurement, combined with qualitative methods, such as told stories, reconstruction of the events, which will allow the individual to express their feelings, emotions, and thoughts that were developed before the event which resulted in the offence, and, as well, in regards to the interpretation of the behaviors and the feelings directed to the victim(s).

Conflict of interest: there was no conflict of interest on the part of the authors.

Funding: This research did not obtain any kind of funding.

Acknowledgment: This research comes from the doctoral thesis of the first author.

REFERENCES


