Early Maladaptive Schemas as Predictors Symptomatology among Victims and Non-Victims of Dating Violence

Esquemas Iniciais Desadaptativos como Preditores Sintomatologia entre Vítimas e Não Vítimas de Violência no Namoro

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Abstract: This study investigated how early maladaptive schemas (EMSs) can predict the development of symptoms of depression, anxiety, and stress in a large sample of dating violence victims. A total of 525 high school adolescents, aged 14 to 19 years old from the metropolitan region of the city of Porto Alegre, Southern Brazil, participated in the study. Participants were divided into two groups: Group of victims of dating violence (n = 396, 60.4% female, M = 16.67 years old, SD = 1.18) and non-victims (n = 129, 52.7% female, M = 16.50 years old, SD = 1.23). The Young Schema Questionnaire for Adolescents – Brief Form, the Conflict in Adolescent Dating Relationships Inventory and the Depression, Anxiety and Stress Scale for Adolescents were applied. Results indicated greater endorsement of depression, anxiety and stress symptoms among victims in comparison with non-victims and among girls in comparison with boys. Dating violence victims showed higher scores in Abandonment, Mistrust/Abuse, Entitlement/Grandiosity, Self-Sacrifice, Approval/Recognition seeking, Negativity/Pessimism and Unrelenting Standards/Hypercriticalness schemas, as compared to non-victims. For female adolescents, the multiple regressions pointed out that early maladaptive schemas (EMSs) explained the variance of the depressive (36%), anxiety (28%), and stress symptoms (26%). For males, the multiple regressions indicated that EMSs explained the variance of the depressive (43%), anxiety (38%), and stress symptoms (39%). The results are discussed from the assumptions of Schema Therapy. Implications for public policy and practice are considered.

Keywords: dating violence, mental health, schema therapy.

Resumo: Este estudo investigou como os esquemas iniciais desadaptativos (EIDs) podem predizer o desenvolvimento de sintomas de depressão, ansiedade e estresse em uma amostra alargada de adolescentes vítimas de violência no namoro. Um total de 525 adolescentes, de 14 a 19 anos de idade, oriundos da região metropolitana de Porto Alegre/RS, participaram no estudo. Os participantes foram divididos em dois grupos: Grupo de adolescentes vítimas (n = 396 adolescentes, 60,4% do sexo feminino, M = 16,67 anos de idade, DP = 1,18 anos) e não-vítimas (n = 129 adolescentes, 52,7% do sexo feminino, M = 16,50 anos de idade, DP = 1,23 anos). O Questionário de Esquemas para Adolescentes-Forma Breve, o Inventário de Conflitos nas Relações de Namoro na

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Adolescência e a Escala de Depressão, Ansiedade e Estresse para Adolescentes foram aplicados. Os resultados indicaram maior sintomatologia de depressão, ansiedade e sintomas de estresse entre as vítimas, em comparação com as não vítimas, e entre as meninas vítimas, em comparação com os meninos vítimas. Vítimas de violência no namoro apresentaram significativamente escores mais altos nos EIDs de Abandono, Desconfiança/abuso, Arrogo/grandiosidade, Autossacrifício, Busca por Aprovação, Negativismo/pessimismo e em Padrões Inflexíveis, quando comparadas ao grupo de não-vítimas. Para o grupo de vítimas do sexo feminino, regressões múltiplas indicaram que os EIDs explicam a variância dos sintomas de depressão (36%), ansiedade (28%) e estresse (26%). Para os adolescentes do sexo masculino, os EIDs também explicam a variância dos sintomas de depressão (43%), ansiedade (38%) e estresse (39%). Os resultados são discutidos a partir dos pressupostos da Terapia dos Esquemas. Implicações para políticas públicas e práticas de intervenção são consideradas.

**Palavras-chave:** violência no namoro, saúde mental, teoria dos esquemas.

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**Introduction**

Dating violence has been proven to be a serious public health problem because it contributes to maintaining violent adult marital relationships, as well as is associated with a number of consequences for the general and mental health of the victims (Bonomi, Anderson, Nemeth, Rivara, & Buettner, 2013; Cheng, Shen, & Jonson-Reid, 2020; Taquette & Monteiro, 2019). Dating violence includes a variety of abusive behaviors, such as psychological, physical, and sexual violence, within a context of current or past romantic or dating relationships between pre-teens, adolescents, and young adults (Centers for Disease Control and Prevention, Division of Violence Prevention, EUA, 2020; Mulford, & Blachman-Demner, 2013).

High prevalence rates of dating violence among adolescents and young people have been identified (CDC, 2020; Goncy, Sullivan Farrell, Mehari, & Garthe, 2017). For example, data from CDC (2020) indicated that 26% of women and 15% of men were victims of an intimate partner in their lifetime before age 18. Nearly 1 in 11 female adolescents and 1 in 15 male adolescents report having experienced physical dating violence in the last year. A study with adolescents aged 11 to 16 years old in the United States of America revealed that 40% of respondents reported having committed one or
more abusive acts against their boyfriend/girlfriend, while 49% reported having suffered violence from their partner (Goncy et al., 2017). In Italy, 43.7% of female adolescents and 34.8% of male adolescents reported experiencing some sort of intimate partner violence, with no gender difference in physical violence, but greater victimization due to psychological violence and sexual intercourse among female adolescents (Romito, Beltramini, & Escribà-Agüir, 2013). In Portugal, the prevalence rate of teen dating violence perpetration was 13.9% and of the victimization was 23.7%, with psychological aggression being most mentioned by adolescents, both in terms of perpetration (41%) and victimization (24.2%) (Santos, Caridade, & Cardoso, 2019). In Brazil, Oliveira, Assis, Njaine and Oliveira (2011) conduct one of the most important studies on teen dating violence in our country, having found 86.9% of adolescents had experienced at least one type of physical, psychological or sexual violence. These results indicate dating violence is a common mental health problem on adolescence and has a bidirectional pattern. So, one specific characteristic of teen dating violence is the bidirectionality of aggressions, that is, the reciprocity of victim and aggressors roles (Barreira, Lima, Bigras, Njaine, & Assis, 2014).

Currently, concern lies with not only the prevalence rates of dating violence among youth but also its consequences for mental health (Bonomi et al. 2013; Goncy et al., 2017; Reys, Foshee, Chen, Gottfredson, & Ennett, 2018). Several psychological problems have been associated with dating violence, including symptoms of depression, anxiety, posttraumatic stress, eating disorders, alcohol and tobacco use, and risky sexual behavior (Bonomi et al., 2013; Cheng et al., 2020; Taquette & Monteiro, 2019). Adolescent victims present more symptoms of depression, eating disorders, and tobacco use in early adult life, compared to non-victims (Bonomi et al., 2013). Chinese victims of dating violence had more severe depressive, anxiety and stress symptoms and poor quality of life than non-victims (Choi, Wong, & Fong, 2017). Brar et al. (2019) pointed a higher risk (1.72 times more) for depression among victims of dating violence in Malawi.
Differences by sex in the symptomatology associated with dating violence were also observed. On the one hand, Romito et al. (2013) pointed out that female adolescents victims were at higher risk than male adolescents for the development of depression, panic attack, eating disorders and suicidal ideation. In Bonomi et al. (2013) study, with American adolescents aged 13 to 19 years old, girls exposed to dating violence also presented higher depressive symptomatology than male adolescents. On the other hand, McCauley et al. (2015) found no gender differences in the association between physical violence and internalizing disorders. Symptoms of depression were also identified in both male and female victims and perpetrators of dating violence. Using longitudinal data (n = 1,273 American adolescents), across the period from adolescence to young adulthood, Johnson, Giordano, Longmore and Manning (2014) found that dating violence victimization and perpetration were associated with increases in depressive symptoms, and these results were present for young men as well as for young women. In a cross-sectional study with Mexican university students (n = 729, Lazarevich, Camacho, Sokolova, & Gutiérrez, 2013), dating violence (particularly verbal-emotional violence, 75%) was associated with low self-esteem in women and with depressive symptoms in both gender. Thus, there is still no consensus in the area about how boys and girls who are victims of dating violence react psychologically to that violence, although it is unanimous that victims present worse psychological adjustment than non-victims (Bonomi et al., 2013; McCauley et al., 2015).

It can be considered that the impact of exposure to dating violence can also vary according to individuals’ specific cognitive vulnerabilities. Based on the cognitive model of Schema-Focused Therapy (Young, 2003), cognitive variables have been considered as key elements for the understanding of mental disorders (Calvete, Orue, & Hankin, 2015). From the assumptions of Beck’s Cognitive Therapy (Hofmann, Asmundson, & Beck, 2013), automatic thoughts, beliefs, and schemas are proposed as different cognitive levels that influence emotions and behaviors and, thus, contribute to the maintenance of
different forms of psychopathologies. Young and colleagues (Young, 2003; Young, Klosko, & Weishaar, 2008) extended the original work of Beck, by identifying that the formation of cognitive schemas occurs in early childhood by naming them Early Maladaptive Schemas (EMSs). EMSs are characterized as a broad pattern formed by memories, emotions and bodily sensations, which contribute to a cognitive coherence about oneself or others, elaborated in childhood or adolescence, and revived throughout life (Rafaeli, Bernstein, & Young, 2011).

EMSs have their origin in the lack of satisfaction of basic emotional needs in childhood, such as when the affective bonding process with the main caregivers fails, when there is a lack of satisfaction of the need for security and affective stability, or when there is a failure to acquire autonomy and freedom of expression, and/or difficulty in limits and self-control (Young et al., 2008). The theoretical model proposed by Young et al. (2008) includes 18 EMSs grouped into five domains: Disconnection and Rejection - these schemas are associated with failures in the care and protection of the child, which leads to beliefs of abandonment and instability; Impaired Autonomy and Performance - schemas aimed at the lack of capacity to be an independent person, to separate, to survive and to act autonomously; Impaired Limits - includes schemas reflecting a deficiency in internal limits (frustration) and responsibility toward others (insufficient self-control); Other-Directedness - in this area there is an excessive focus on the desires of others, at the expense of one’s own needs; and Overvigilance and Inhibition - involve schemas of rigidity, perfectionism and suppression of one’s feelings (Young et al., 2008).

Previous studies indicate an association between EMSs and internalizing problems in adolescence, including depression and anxiety (Brenning, Bosmans, Braet, & Theuwis, 2012; Calvete, 2014; Calvete et al., 2015; Mateos-Pérez & Calvete, 2015; Roelofs, Lee, Ruijten, & Lobbestael, 2011). It has been pointed out an association between the EMSs of the Disconnection and Rejection domain and symptoms of depression in adolescence (Calvete, 2014; Roelofs et al., 2011). Disconnection and Rejection, Impaired
Autonomy and Performance and Other-Directedness domains were also predictors of depression symptoms (Calvete et al., 2015). In turn, Abandonment/instability, Vulnerability to harm/illness and dependence/incompetenceschemas were associated with anxiety symptoms in college students (Cámara & Calvete, 2012). Studies still point out differences by sex regarding the role of EMSs in the development of psychopathologies in adolescence. For example, in Calvete, Orue, and Hankin (2013) study, schemas within the Disconnection and Rejection and Other-Directedness domains were significantly more associated with the symptoms of depression in boys than in adolescent girls. Conversely, Brenning et al. (2012) indicated that Belgian girls had higher scores on Abandonment/instability, Mistrust/abuse, Failure, Vulnerability to Harm/Illness, Subjugation, Self-sacrifice, and Insufficient self-control scores than boys. There was also a stronger association between EMSs and depression symptoms for girls than for boys.

Few studies have investigated the role of EMSs as predictive mechanisms of psychopathologies in intimate partner violence victims (Harding, Burns, & Jackson, 2012; Hassija, Robinson, Silva, & Lewin, 2018). In the adult population, schemas within the Disconnection and Rejection domain were significant mediating variables in the relationship between being the victim of intimate partner violence and symptoms of depression in women (Calvete, Estévez, & Corral, 2007). Mistrust/abuse, Vulnerability to Harm/Illness and Emotional Deprivation schemas have been shown to be associated with the symptoms of posttraumatic stress in adult women victims of sexual violence (Harding et al., 2012). EMS of subjugation and self-sacrifice contributed to intimate partner violence victimization among female adults (Hassija et al., 2018).

Research into the adolescent population are even scarcer. Calvete, Fernández-González, Orue, and Little (2018), by studying only the role of EMSs in cases of dating violence in adolescence, pointed a association between exposure to intrafamily violence and Disconnection and Rejection and Impaired Limits domains. In turn, the
Disconnection and Rejection schemas were significant predictors of the perpetration of violence. In Brazil, Borges and Dell’Aglio (2020) indicated Disconnection and Rejection domains schemas were mediators between to child maltreatment and physical violence in adolescence. Thus, both as a victim and as a perpetrator, the role of EMSs seems to be a significant variable in understanding teen dating violence.

Given the scarcity of research on the relationship between EMSs, dating violence and the development of psychopathology indicators, this study investigated how EMSs can predict the development of symptoms of depression, anxiety, and stress in a large sample of dating violence victims. It also sought to describe the patterns of victimization, symptomatology and initial schemas and how they may differ between victims and non-victims. We hypothesize I) that adolescents victims of dating violence have higher scores of depression, anxiety, and stress symptoms, compared to non-victimized adolescents; II) adolescent female victims present higher scores of symptomatology than male victims; III) adolescents who are victims of dating violence have higher scores on EMSs than non-victims; and IV) EMSs are significant predictors of the symptoms of depression, anxiety, and stress in victims of dating violence.

Method

Participants

A total of 560 high school students aged 14 to 19 from public and private schools in Porto Alegre and metropolitan region participated in the study. This age group was chosen as the United Nations Children’s Fund (UNICEF, 2011) considers adolescence between the ages of 10 and 19, and also because according to data from the Ministry of Health (Barbosa & Koyama, 2008), the average age of first sexual intercourse is 14.9 in Brazil. Thus, by selecting high school students, there is a greater likelihood of adolescents who have experienced romantic involvement. Participants were
adolescents from 10 high schools, being the majority public high schools in a context of low-income status. Only adolescents who had had or were in some kind of affective-sexual relationship, excluding adolescents who were married or living with their partner, were included in the sample. Adolescents victims of dating violence were characterized as those who scored at least one point in the overall score of the CADRI victimization instrument. Participants were divided into two groups: Group of victims of dating violence (n = 396, 75.4%) and non-victims (n = 129, 24.6%), as described below:

The Group of Victims included 396 adolescents with a mean age of 16.67 years (SD = 1.18), 60.4% female (n = 239) and 39.6% male (n = 157). In the survey, 68.3% were dating and 30.9% were "seeing someone", with a relationship time ranging from two weeks to eight years (M = 12.27 months; SD = 12.79). The age of the current partner ranged from 13 to 30 years old (M = 17.78; SD = 2.56). The majority of the participants had heterosexual relationships (94.8% of girls and 94.2% of boys).

The Non-Victims Group included 129 adolescents with a mean age of 16.50 years (SD = 1.23), 52.7% female (n = 68) and 47.3% male (n = 61). In this group, 62.5% of the adolescents were in a dating-related affective-sexual relationship, while 37.5% were "seeing someone", with an average duration of fifteen days to four years (M = 7.90 months; SD = 9.82). The mean age of the partner ranged from 14 to 26 years (M = 17.70; SD = 2.39). Most adolescents had heterosexual relationships (95.5% of girls, 100% of boys).

**Measures**

*Questionnaire on Socio-demographic data and affective-sexual relations in adolescence,* elaborated by the authors to evaluate individual characteristics (age, sex, and schooling) and current or past affective-sexual relationships;

*Inventory of Conflicts in Dating Relationships in Adolescence* (CADRI, Wolfe, Scott, Reitzel-Jaffe, & Wekerle, 2001; adapted to Brazil by Minayo, Assis, & Njaine, 2011), which assesses the presence and frequency of abusive behaviors in affective-sexual
relationships in adolescence. The instrument consists of 70 questions answered on a four-point Likert scale, with 25 items for situations in which the person is a victim and 25 items in which he is a perpetrator, in addition to 20 items considered neutral. CADRI investigates the following categories:

Physical violence - consists of four items that refer to situations of physical aggression such as slapping, tapping, kicking, pushing, pulling hair or using objects to hurt each other (throwing something against the person).

Psychological violence: it is subdivided into three aspects: 1) Verbal/emotional violence (10 items), which involves abusive behaviors that verbally and emotionally attack the partner, with the purpose of provoking jealousy, disqualifying the partner, speak in a hostile voice or threaten to end the relationship; 2) Threats (four items), which includes the use of verbal threats with the purpose of provoking fear or physical aggression; and 3) Relational violence (three items), which involves situations such as spreading rumors about the partner, negatively influencing your peer group, trying to put the group against the person.

Sexual violence: consisting of four items that assess forms of sexual violence, such as forcing a sexual relationship, or touching sexually against the will, kissing the partner when you want and using threats to try to have a sexual relationship. In the study of the adapted version for Brazil (Minayo et al., 2011) was used conceptual and semantic equivalence analysis, and internal consistency. Regarding the Portuguese translation, most of the items were translated directly, although five items were adapted to better understand Brazilian adolescents. The Alpha for the violence suffered was 0.87 and the violence perpetrated was 0.88.

Depression, Anxiety and Stress Scale for Adolescents – EDAE-A (DASS, Lovibond, & Lovibond, 1995; adapted to Brazil by Patias, Machado, Bandeira, & Dell’Aglio, 2016), which is composed of 21 items on a 4-point Likert scale that assess the presence of symptoms of depression, anxiety and stress in the last week. The instrument presented
good internal consistency in the validation study for Brazilian adolescents (Patias et al., 2016): depression (0.90), anxiety (0.83) and stress (0.86), and in the current study, Cronbach’s alphas in the subscales were: depression (0.88), anxiety (0.81), and stress (0.86).

Brief Form of the Young Schema Questionnaire for Adolescents (B-YSQ-A, Portuguese Version of Santos, Vagos, & Rijo, 2018, validated for Brazil by Borges, Vagos, Dell’Aglio, & Rijo, 2020.), which evaluates the 18 maladaptive initial schemas, based on the model proposed by Schema-Focused Therapy, using 52 items presented in a non-consecutive way which are answered based on a six-point Likert scale. The mean responses to the items assessing each of the 18 EMSs are taken as an indicator of the salience of each of these EMSs themselves. A Confirmatory Factor Analysis confirmed the 18 theoretically proposed factors (Santos et al., 2018). In this study, the internal consistency of 14 out of 18 EMSs showed between 0.60 and 0.83, revealing an acceptable trustworthiness.

Procedures

Authorization was requested from the State Department of Education and the direction of the schools to carry out the research. Adolescents were invited to participate in the research on a voluntary basis and the Parental Informed Consent was requested (for parents of adolescents under 18 years and adolescents themselves when aged 18 years or more). The application was collective, in the own schools, with an average duration of one hour. This study was approved by the Ethics Committee in Psychology of the Federal University of Rio Grande do Sul (Opinion 1.143.563 of July 6, 2015).

Initially, a simple frequency description for the patterns of victimization was performed. The t-test was used to verify differences in victimization scores by sex. Subsequently, a difference in depression, anxiety and stress symptom scores by group and sex (t-test) were calculated. 95% confidence intervals and the classification proposed
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by Cohen (1988) for the magnitude of effect size were used (i.e., 0.20-0.49 = small; 0.50-0.79 = moderate; and above 0.80 = large effect size).

Regarding the EMSs scores, the average of the items in each schema was adopted for the data analyzes. A t-test was performed to investigate for differences in the means of the EMSs between the victim and the non-victim groups, as well as to study differences by sex in the group of victims. Finally, multiple regressions were performed to verify whether EMSs (independent variables) can be considered as predictors of depression, anxiety and stress symptoms in victims of dating violence. Thus, three independent multiple regressions were conducted for each of the criteria variables (symptoms of depression, anxiety, and stress) and by sex. A Backward estimation technique was adopted, and the 18 EMSs were initially placed in the model, with the exclusion of those that did not contribute significantly; so, only those EMSs with a statistically significant contribution were retained for the final model. In order to evaluate multicollinearity, the indices of variance inflation (VIF) and tolerance index were used.

Results

Patterns of victimization

Regarding the types of violence suffered, it was observed that 98.5% (n = 390) of the adolescents reported having suffered verbal/emotional violence in their affective-sexual relationships; 44.7% (n = 177) sexual violence; 30.8% (n = 122) physical violence; 29.0% (n = 115) psychological violence/threats; and 22.5% (n = 89) relational violence. The t-test did not indicate a significant difference in means of CADRI victimization, by sex.
**Symptomatology between victims and non-victims**

Table 1 presents the results of the EDAE-A analyzes for the groups of adolescent victims and non-victims. The effect sizes for these differences are considered small.

**Table 1.**
Comparison of mean of depression, anxiety and stress symptoms among dating violence victim’s vs. non-victims (n=525)

<table>
<thead>
<tr>
<th></th>
<th>Victims (n=396)</th>
<th></th>
<th>Non victims (n=129)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M/SD</td>
<td>IC 95%</td>
<td>M/SD</td>
<td>IC 95%</td>
</tr>
<tr>
<td>Depression score</td>
<td>5,33(5,24)</td>
<td>4,81-5,85</td>
<td>4,18(4,64)</td>
<td>3,37-4,99</td>
</tr>
<tr>
<td>Anxiety score</td>
<td>3,94(4,29)</td>
<td>3,51-4,36</td>
<td>2,58(3,56)</td>
<td>1,96-3,20</td>
</tr>
<tr>
<td>Stress score</td>
<td>6,86(5,19)</td>
<td>6,35-7,37</td>
<td>5,38(5,09)</td>
<td>4,49-6,27</td>
</tr>
<tr>
<td>EDAE-A total score</td>
<td>16,13(12,98)</td>
<td>14,84-17,41</td>
<td>12,14(11,72)</td>
<td>10,10-14,18</td>
</tr>
</tbody>
</table>

Note. EDAE-A= Depression, Anxiety and Stress Scale for Adolescents.

**Symptomatology by sex**

There was a significant difference for the symptoms of depression, anxiety and stress, as well as in the total EDAE-A score, by sex in the group of victims. Female adolescents (M = 5.91, SD = 5.42) reported significantly higher levels of depression symptoms than male adolescents (M = 4.45, SD = 4.82), t(394)= 2.75, p = 0.006, d = .34. In the same direction, female (M = 4.50, SD = 4.58) had significantly higher levels of anxiety symptoms than male (M = 3.08, SD = 3.68), t(394)= 3.25, p = 0.001, d = .38. Moreover, female adolescents obtained (M = 7.73, SD = 5.42) stress scores significantly higher than male adolescents (M= 5.54, SD = 4.51), t(394)= 4.20, p = 0.001, d = .43. Ultimately, female adolescents showed a total score EDAE-A (M= 18.14, SD = 13.46) significantly higher than male adolescents (M = 13.06, SD = 11.60), t(394)= 3.87, p = 0.001, d = .40.
Table 2.
Comparison of means of the early maladaptive schemas among dating violence victim’s v. non-victims (n=525)

<table>
<thead>
<tr>
<th>EMS</th>
<th>Victims (n=396)</th>
<th>Non-victims (n=129)</th>
<th>t-test</th>
<th>p Value</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abandonment/instability</td>
<td>4.22(1.33)</td>
<td>4.09-4.36</td>
<td>3.71(1.40)</td>
<td>3.50-3.96</td>
<td>3.75</td>
</tr>
<tr>
<td>Mistrust/abuse</td>
<td>3.32(1.35)</td>
<td>3.18-3.45</td>
<td>2.69(1.19)</td>
<td>2.49-2.90</td>
<td>4.98</td>
</tr>
<tr>
<td>Emotional deprivation</td>
<td>2.03(1.29)</td>
<td>1.90-2.15</td>
<td>2.02(1.34)</td>
<td>1.79-2.25</td>
<td>0.04</td>
</tr>
<tr>
<td>Defectiveness/shame</td>
<td>1.70(1.04)</td>
<td>1.60-1.80</td>
<td>1.73(1.09)</td>
<td>1.54-1.92</td>
<td>0.23</td>
</tr>
<tr>
<td>Social isolation/alienation</td>
<td>2.25(1.36)</td>
<td>2.11-2.38</td>
<td>2.12(1.44)</td>
<td>1.87-2.37</td>
<td>0.89</td>
</tr>
<tr>
<td>Dependence/incompetence</td>
<td>1.66(0.90)</td>
<td>1.57-1.75</td>
<td>1.62(0.80)</td>
<td>1.48-1.76</td>
<td>0.43</td>
</tr>
<tr>
<td>Vulnerability to harm/illness</td>
<td>2.59(1.34)</td>
<td>2.46-2.72</td>
<td>2.55(1.44)</td>
<td>2.30-2.80</td>
<td>0.26</td>
</tr>
<tr>
<td>Enmeshment/undeveloped self</td>
<td>2.92(1.44)</td>
<td>2.78-3.06</td>
<td>2.94(1.42)</td>
<td>2.70-3.19</td>
<td>0.15</td>
</tr>
<tr>
<td>Failure</td>
<td>2.07(1.26)</td>
<td>1.95-2.20</td>
<td>2.10(1.23)</td>
<td>1.88-2.31</td>
<td>0.18</td>
</tr>
<tr>
<td>Entitlement/grandiosity</td>
<td>2.08(1.03)</td>
<td>1.98-2.18</td>
<td>1.76(0.82)</td>
<td>1.61-1.90</td>
<td>3.65</td>
</tr>
<tr>
<td>Insufficient self-control</td>
<td>2.30(1.14)</td>
<td>2.19-2.41</td>
<td>2.22(1.15)</td>
<td>2.02-2.42</td>
<td>0.67</td>
</tr>
<tr>
<td>Subjugation</td>
<td>1.86(0.92)</td>
<td>1.77-1.95</td>
<td>1.86(0.96)</td>
<td>1.69-2.02</td>
<td>0.07</td>
</tr>
<tr>
<td>Self-sacrifice</td>
<td>3.73(1.27)</td>
<td>3.60-3.85</td>
<td>3.37(1.31)</td>
<td>3.14-3.60</td>
<td>2.75</td>
</tr>
<tr>
<td>Approval/recognition-seeking</td>
<td>2.81(1.32)</td>
<td>2.68-2.95</td>
<td>2.49(1.29)</td>
<td>2.26-2.71</td>
<td>2.46</td>
</tr>
<tr>
<td>Negativity/pessimism</td>
<td>3.17(1.46)</td>
<td>3.03-3.31</td>
<td>2.73(1.43)</td>
<td>2.48-2.98</td>
<td>3.01</td>
</tr>
<tr>
<td>Emotional inhibition</td>
<td>2.97(1.35)</td>
<td>2.84-3.10</td>
<td>3.04(1.39)</td>
<td>2.80-3.28</td>
<td>0.51</td>
</tr>
<tr>
<td>Unrelenting standards</td>
<td>3.47(1.47)</td>
<td>3.32-3.62</td>
<td>3.15(1.37)</td>
<td>2.92-3.39</td>
<td>2.15</td>
</tr>
<tr>
<td>Punitiveness</td>
<td>2.30(1.29)</td>
<td>2.17-2.43</td>
<td>2.09(1.07)</td>
<td>1.91-2.28</td>
<td>1.81</td>
</tr>
</tbody>
</table>

Note: EMS= Early Maladaptive Schemas.

EMSs Scores between victims and non-victims and by sex

Table 2 indicates the mean scores of the EMSs for the victim and non-victim group of dating violence. The t-test indicated that adolescent victims of dating violence had significantly higher scores on Abandonment/instability, Mistrust/abuse, Entitlement/grandiosity, Self-sacrifice, Approval/seeking, Negativity/pessimism, and Unrelenting standards when compared to non-victimized adolescents. However, effect sizes are considered small.
It was also sought to evaluate if there was a difference in the EMS scores in the group of victims, by sex (Table 3). The t-test showed a significant difference between the sexes in the EMSs of Abandonment/instability and Vulnerability to harm/illness, with higher scores in female victims. Male adolescents, on the other hand, presented significantly higher scores in the EMSs of Insufficient self-control and Unrelenting standards. These differences showed small effect sizes.

**EMSs as predictors of depression, anxiety and stress symptoms in victims**

The results from multiple linear regression indicated that EMSs can be characterized as predictors of symptomatology in adolescents victims of dating violence, with specificities for each sex. For female (Table 4), EMSs account for 36% of the variance of the symptoms of depression [F (27,33), p = 0.001]; 28% of the variance of anxiety...
symptoms [F (24.02), p = 0.001]; and 26% of the variance of stress symptoms [F(17,62), p=0.001]. For male adolescents (Table 5), multiple regression results indicated that EMSs account for 43% of the variance of the symptoms of depression [F (20,68), p = 0.001]; 38% of the variance of anxiety symptoms [F (25,25), p = 0.001], and 39% of the variance of stress symptoms [F(24,16), p=0.001].

Additionally, for each sex, different EMSs contributed as predictors of the symptoms of depression, anxiety, and stress. The EMSs of Negativity/pessimism, Social isolation/alienation, Defectiveness/shame and dependence/incompetence, although considered as predictors of depression for both sexes, assume a different explanatory value for girls and boys. The EMS Mistrust/abuse assumed a particular predictor for depression symptoms for female, whereas the EMS Emotional Deprivation is considered as predictor for male.

Table 4.
EMSs as predictor for depression, anxiety, and stress symptoms on female victims of dating violence

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>ß</th>
<th>t</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>0.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negativity/pessimism</td>
<td>0.78</td>
<td>0.23</td>
<td>0.22</td>
<td>3.33*</td>
<td></td>
</tr>
<tr>
<td>Social isolation/alienation</td>
<td>0.72</td>
<td>0.26</td>
<td>0.18</td>
<td>2.80**</td>
<td></td>
</tr>
<tr>
<td>Dependence/incompetence</td>
<td>1.05</td>
<td>0.37</td>
<td>0.18</td>
<td>2.86**</td>
<td></td>
</tr>
<tr>
<td>Mistrust/abuse</td>
<td>0.63</td>
<td>0.25</td>
<td>0.16</td>
<td>2.50**</td>
<td></td>
</tr>
<tr>
<td>Defectiveness/shame</td>
<td>0.65</td>
<td>0.33</td>
<td>0.12</td>
<td>2.00**</td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.28</td>
</tr>
<tr>
<td>Vulnerability to harm/illness</td>
<td>0.92</td>
<td>0.21</td>
<td>0.28</td>
<td>4.50*</td>
<td></td>
</tr>
<tr>
<td>Negativity/pessimism</td>
<td>0.56</td>
<td>0.19</td>
<td>0.18</td>
<td>2.90**</td>
<td></td>
</tr>
<tr>
<td>Emotional deprivation</td>
<td>0.62</td>
<td>0.21</td>
<td>0.17</td>
<td>2.94**</td>
<td></td>
</tr>
<tr>
<td>Self-sacrifice</td>
<td>0.53</td>
<td>0.21</td>
<td>0.15</td>
<td>2.55**</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.26</td>
</tr>
<tr>
<td>Social isolation/alienation</td>
<td>1.10</td>
<td>0.25</td>
<td>0.27</td>
<td>4.35*</td>
<td></td>
</tr>
<tr>
<td>Negativity/pessimism</td>
<td>0.81</td>
<td>0.23</td>
<td>0.23</td>
<td>3.50*</td>
<td></td>
</tr>
<tr>
<td>Entitlement/grandiosity</td>
<td>1.05</td>
<td>0.35</td>
<td>0.19</td>
<td>3.02**</td>
<td></td>
</tr>
<tr>
<td>Self-sacrifice</td>
<td>0.61</td>
<td>0.25</td>
<td>0.14</td>
<td>2.39**</td>
<td></td>
</tr>
</tbody>
</table>

Note. EMS= Early maladaptive schema; *Durbin-Watson=1,93; **Durbin-Watson=2,07; *Durbin-Watson=2,03 **p<0,01; **p<0,05
Table 5.
EMSS as predictor of depression, anxiety, and stress symptoms on male victims of dating violence

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depression</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.43</td>
</tr>
<tr>
<td>Defectiveness/shame</td>
<td>1.00</td>
<td>0.39</td>
<td>0.23</td>
<td>2.55**</td>
<td></td>
</tr>
<tr>
<td>Social isolation/alienation</td>
<td>0.73</td>
<td>0.28</td>
<td>0.21</td>
<td>2.62**</td>
<td></td>
</tr>
<tr>
<td>Negativity/pessimism</td>
<td>0.69</td>
<td>0.27</td>
<td>0.20</td>
<td>2.60**</td>
<td></td>
</tr>
<tr>
<td>Emotional deprivation</td>
<td>0.60</td>
<td>0.25</td>
<td>0.17</td>
<td>2.36**</td>
<td></td>
</tr>
<tr>
<td>Dependence/incompetence</td>
<td>0.85</td>
<td>0.38</td>
<td>0.15</td>
<td>2.21**</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Anxiety</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>0.38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defectiveness/shame</td>
<td>1.04</td>
<td>0.26</td>
<td>0.32</td>
<td>4.07*</td>
<td></td>
</tr>
<tr>
<td>Dependence/incompetence</td>
<td>0.94</td>
<td>0.31</td>
<td>0.22</td>
<td>3.00**</td>
<td></td>
</tr>
<tr>
<td>Emotional deprivation</td>
<td>0.47</td>
<td>0.19</td>
<td>0.17</td>
<td>2.50**</td>
<td></td>
</tr>
<tr>
<td>Vulnerability to harm/illness</td>
<td>0.43</td>
<td>0.21</td>
<td>0.15</td>
<td>2.04**</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Stress</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>0.39</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependence/incompetence</td>
<td>1.52</td>
<td>0.36</td>
<td>0.29</td>
<td>4.22*</td>
<td></td>
</tr>
<tr>
<td>Negativity/pessimism</td>
<td>0.82</td>
<td>0.24</td>
<td>0.25</td>
<td>3.47*</td>
<td></td>
</tr>
<tr>
<td>Emotional deprivation</td>
<td>0.83</td>
<td>0.22</td>
<td>0.25</td>
<td>3.73*</td>
<td></td>
</tr>
</tbody>
</table>

Note. EMS = Early maladaptive schema. *Durbin-Watson=1.79, **Durbin-Watson=2.15,  
*Durbin-Watson=1.79 *p<0.001; **p<0.05

For anxiety symptoms, EMSs from Vulnerability to Harm/Illness and Emotional Deprivation are common predictors to both sexes. For female, the EMSs Negativity/pessimism and Self-sacrifice contributed as specific predictors for anxiety symptoms. For male, the EMSs Defectiveness/shame and Dependence/incompetence have played an important role in stress symptoms. Finally, for the symptoms of stress, only the schema Negativity/pessimism is common between both sexes, indicating there is a greater variability of predictor for this symptomatology.

Discussion

This study investigated the presence of dating violence in adolescence, seeking to emphasize the relationship between victimization and the development of symptomatology, as well as the relevance of the EMSs in this understanding. In general, victims had significantly higher symptoms than non-victims, confirming initial
hypothesis. The results are consistent with previous studies that indicate the presence of psychological consequences in adolescents victims of dating violence (Bonomi et al., 2013; Ulloa & Hammett, 2016; Taquette & Monteiro, 2019). Exposure to dating violence in adolescence is a risk factor for psychological changes and should be understood as a major stressor event in the life of adolescents and young people.

Although no gender difference in patterns of victimization of dating violence was found, it was possible to identify greater symptomatology among adolescent female victims, confirming initial hypothesis. Other studies have identified an impact of dating violence more severe in female adolescents (CDC, 2020; Ulloa & Hammett, 2016; Vahl, van Damme, Doreleijers, Vermeiren, & Colins, 2016). Higher symptoms in female victims compared to male victims may contribute to difficulties in recognizing signs of violence in love relationships, in calling for help, in and terminating abusive relationships, since such symptoms may negatively impact on the victims' self-esteem (Cascardi, 2016).

Adolescent victims of dating violence had higher scores on Abandonment/instability, Mistrust/abuse, Entitlement/grandiosity, Self-sacrifice, Approval/seeking, Negativity/pessimism, and Unrelenting Standards when compared to non-victims group confirming initial hypothesis. The Abandonment/Instability and Mistrust/Abuse EMSs belong to the Disconnection and Rejection domain, which encompasses expectations that the emotional needs for security, protection, and care will not be met satisfactorily (Young et al., 2008). The EMS of Abandonment/instability concerns the perception that people are unstable and do not deserve our trust because they tend to abandon us. The Mistrust/abuse EMS involves the perception that others may hurt, abuse, humiliate, manipulate, or even the idea that you are being deceived by others. In such a way, these schemas can activate, in the current loving relationships, the perception of insecurity, abandonment, and instability learned in the early childhood. In addition, victims may choose loving partners who are not available for a stable and
secure emotional relationship, thus paradoxically confirming their initial schemas. Thus, intimate partner violence can reinforce the belief that people are abusive and untrustworthy (Young et al., 2008).

Self-sacrifice and Approval/recognition-seeking EMSs encompass the domain of Other-directedness. This domain refers to an excessive focus on meeting the desires and feelings of others at the expense of one’s own needs, with the goal of gaining approval and love or avoiding conflicts (Young et al., 2008). Victims of dating violence may overly seek to meet the partner’s desires by becoming passive and submissive. They may also have a hypersensitivity to rejection, thus seeking to do everything to please the partner, looking for the approval and avoiding conflict.

The Negativity/pessimism and Unrelenting standards EMSs are part of the Overvigilance and inhibition domain. People with schemas in this domain suppress their feelings, impulses and spontaneous choices and seek to strictly comply with internalized rules. There is an hypervigilance regarding negative life events. The Negativity/Pessimism schema involves excessive negative expectation towards life to the detriment of positive events (Young et al., 2008). The Unrelenting standards schema refers to the idea that high standards of internal demand should be achieved in order to avoid criticism. It is associated with perfectionism and rigid rules. In this way, victims of dating violence may become more rigid with themselves in order to avoid receiving criticism and disqualification from the partner. The context of the affective relationship, based on violence, can lead adolescents to become hypervigilant, as well as having a negative view of life. In addition, the difficulty in being spontaneous, in expressing their feelings in an authentic way, and in relaxing are described as characteristics of profile of the intimate partner violence victim (Paim, Madalena, & Falcke, 2012).

Finally, the Entitlement/grandiosity EMS was markedly higher among victims than non-victims. This schema refers to the belief in being superior to others, deserving of special rights and privileges, or the need to control or have power over others (Young
et al., 2008). This result can be better understood if we consider the coping styles adopted by the victims, and the grandiosity may be a form of hyper compensating an abandonment schema, for example. In a study with adult couples, the Entitlement/grandiosity schema was associated with victimization of marital violence (Paim et al., 2012).

In the current study, female adolescents presented significantly higher scores in the Abandonment/Instability (Disconnection and Rejection Domain) and Vulnerability to Harm/Illness (Impaired Autonomy and Performance Domain). Among male adolescents, victims of dating violence, they had a significantly higher score in the EMSs of Insufficient self-control (Impaired Limits Domain) and Unrelenting standards (Over vigilance and Inhibition Domain). Girls victims, in comparison with victim boys, tend to have more perceptions about abandonment, and instability in their primary affective bonds, whereas boys victims may have the greater avoidance of conflicts and criticism, as well as difficulty in expressing affections spontaneously. Thus, differences emerged regarding the profile of typical schemas in victims of dating violence, by sex. Gender differences in typical schemas have also been identified in studies with adolescents and young adults in the community and clinical samples (Brenning et al., 2012; Calvete et al., 2013). In addition, such differences may be useful for understanding cognitive vulnerabilities to being a victim of dating violence.

The results of the present study also indicated that EMSs can predict the symptoms of depression, anxiety, and stress in adolescents victims of dating violence, confirming initial hypothesis. Disconnection and Rejection domain schemas (Defectiveness/shame, Emotional deprivation, Social isolation/alienation, and Mistrust/abuse) were considered predictors of depression symptoms for both sexes, confirming earlier findings with adolescents and youth (Calvete et al., 2013; Câmara & Calvete, 2012). For adolescent females, the Negativity/pessimism schema was the major contributor to the symptoms of depression, being consistent with the cognitive model of depression.
associated with a negative view of oneself, of others and of the world. Lack of a more positive outlook on life can lead to discouragement and lack of hope, which are important symptoms of depression. For male adolescents, the Defectiveness/shame EMS was the major contributor to the symptoms of depression. This schema is associated with the idea of being flawed, inferior, which can lead to feelings of shame, inferiority and low self-esteem, typical of depression. This schema was also associated with the symptoms of depression in adults (Schmidt, Joiner, Young, & Telch, 1995) and in adolescents (Van Vlieberghe, Braet, Bosmans, Rosseel, & Bögels, 2010). Moreover, it is important emphasized that symptoms of depression can increase the risk for a new dating violence victimization (Rizzo et al., 2017).

In relation to anxiety symptoms, the Vulnerability to harm/illness EMS was the one that contributed the best among the girls. This schema belongs to the domain of Impaired Autonomy and Performance and is characterized by excessive fear of catastrophic situations in which the person will not have the internal capacity to face such situations. In general, studies indicate that this schema is associated with different psychopathological anxiety (Calvete et al., 2015; Cámara & Calvete, 2012). For male adolescents, the Defectiveness/shame EMS (Disconnection and Rejection Domain) contributed the most to this association. Anxiety symptoms may be more associated with excessive concern about the other’s view of one’s own qualities and abilities (fear of the other recognizing the intimate partner’s failures) in male adolescents.

Regarding the symptoms of stress, a greater diversity of schemas was considered as predictors of such symptoms, depending on the sex of the subjects. For girls, the Social isolation/alienation EMS was the major contributor to the model. Stress symptoms may be associated with perceived instability and lack of social and emotional support in the face of conflict in intimate relationships. The Dependence/incompetence EMS was the one that best explained the stress symptoms for boys. This schema concerns the belief that being unable to live independently from the others, being free and autonomous. In this
sense, more insecure adolescents may become emotionally dependent on the intimate partner, increasing the likelihood of remaining in abusive relationships, which may lead to higher levels of stress and suffering over time.

**Conclusions**

The results of this study reinforce the presence of symptoms of depression, anxiety, and stress among adolescents victims of dating violence, as well as confirming differences by sex in the patterns of symptoms and in the EMSs. In general, symptoms of depression were associated with the Disconnection and Rejection Domain and Impaired Autonomy and Performance, indicating that EMSs can be characterized as predictors these symptoms. Due to observed sex differences, it is suggested that future research should include sex as a moderating variable between EMSs and symptomatology in adolescents, especially in situations of exposure to violence. Therefore, Schema Therapy can be useful in understanding how EMSs can contribute to the development of these symptoms (Cascardi, 2016) in adolescents victims of dating violence.

Some limitations can be pointed out in this study. The first refers to the transversal character of the data collection, which does not allow establishing the temporal character between exposure to violence, symptomatology, and EMSs. The second refers to the convenience of selecting the sample, which is composed mainly of adolescents from a metropolitan region of the country and public schools (lower socioeconomic level), which limits the possibility of generalization of the conclusions. In addition, the data refer only to one of the adolescents of the love dyad, and future research could include the dyad itself from clinical case studies to investigate the trigger situations that activate EMSs during a conflict with the intimate partner (Paim & Falcke, 2016). Future research may also longitudinally investigate aspects associated with emotional experiences in childhood, the presence of dating violence in adolescence, and
adult conjugal violence (Borges & Dell’Aglio, 2020). Furthermore, future studies can investigate psychological and cognitive aspects among adolescents who perpetrate teen dating violence, based on the assumptions of Schema Therapy.

In spite of these limitations, the results of this study have important policy implications for policymakers, practitioners and social workers who work on dating and marital violence prevention. These findings may contribute to preventive interventions to interrupt the cycle of violence in loving relationships, from the early violence experienced in relationships in adolescence to adult conjugal violence. It is still emphasized that dating violence is a predictor of adult marital violence (Borges, Giordani, Wendt, Trentini, & Dell’Aglio, 2020). Indeed, victims of dating violence need special attention to deal with the emotional and traumatic consequences of trauma response (Rancher, Jouriles, Rosenfield, Temple, & McDonald, 2019) Thus, public policies and services need to provide attention to the phenomenon of dating violence in adolescence. In Brazil, there is a lack of specific public policies for the prevention and interventions on dating violence, as official programs have focused only on combating violence against women. Such programs need to broaden the discussion of intimate partner violence, including dating violence as the target of their interventions.

Moreover, this study has an innovative character because it has a focus on adolescents victims of dating violence, seeking to identify the association between symptoms of depression, anxiety, stress and EMSs. The latter aspect is still under investigation. The associations between observed symptoms and EMSs can act as a reinforcer of schemas learned in the processes of attachment to primary caregivers, which are reworked and can be maintained dysfunctionsally through adolescent life experiences. Thus, psychological intervention strategies based on Schema Therapy may be applied for the psychological assistance of the victims, with the aim of flexibilizing and restructuring the initial maladaptive schemas.
Early Maladaptive Schemas as Predictors Symptomatology among Victims and Non-Victims of Dating Violence

References


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