Variables Associated with Dating Violence Victimization in Colombian Adolescents*

Variables asociadas con la victimización por violencia en el noviazgo en adolescentes colombianos

Variáveis associadas com a vitimização por violência no namoro em adolescentes colombianos

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Abstract:

Objective. To examine the relation between a set of variables with dating violence victimization, among 811 adolescents from 12 to 19 years old, attending various educational institutions from two intermediate Colombian cities. Method. The Spanish versions of the Conflict in Adolescent Dating Relationships Inventory (CADRI), the self-report of the Behavior Assessment System for Children and Adolescents (BASC-S3), the SCL-90-R Checklist of Symptoms, and a self-report questionnaire of psychological variables were used. Correlational analysis and a multiple linear regression were implemented. Results. The frequency of abuse received correlated significantly ($p \leq 0.05$) with clinical variables including somatization, depression and anxiety, substance use, suicide attempts and general clinical maladjustment, personality traits such as sensation seeking and atypicality and with contextual variables such as school maladjustment, negative attitude toward school, family physical abuse, paternal and maternal neglect and bad relationships with parents. All these variables explained 18.1% of victimization variance. Marijuana use, some psychopathological symptoms, and poor maternal relationships significantly predicted such victimization. Conclusion. The victimization could be related to severe physical and mental health difficulties, as well as intrapersonal and contextual variables which should be considered together for the successful intervention of the victims, including their families and the school environment.

Keywords: Dating violence, adolescents, victimization, mental health, risk factors.

Resumen:

Objetivo. Examinar la relación entre un conjunto de variables con la victimización por violencia en el noviazgo, entre 811 adolescentes de 12 a 19 años de edad, vinculados a varias instituciones educativas de dos ciudades intermedias de Colombia. Método. Se utilizaron las versiones en castellano del Conflict in Adolescent Dating Relationships Inventory (CADRI), el Sistema de Evaluación de la Conducta de Niños y Adolescentes versión de autoinforme (BASC-S3) y la Lista de Chequeo de 90 Síntomas Revisada (SCL-90-R) y un cuestionario de autoinforme de variables psicológicas, implementándose análisis de correlación y una regresión lineal múltiple. Resultados. La frecuencia del maltrato recibido correlacionó significativamente ($p \leq 0.05$) con variables clínicas como somatización, depresión y ansiedad, uso de sustancias, intentos de suicidio y desajuste clínico, rasgos de personalidad como búsqueda de sensaciones y atipicidad, y variables contextuales como desajuste escolar, actitud negativa hacia el colegio, maltrato físico, abandono paterno y materno y malas relaciones con los padres. Todas estas variables explicaron el 18.1% de la varianza de victimización. El uso de marihuana, varios síntomas psicopatológicos y las malas relaciones maternas predijeron significativamente dicha victimización. Conclusión. La victimización podría estar relacionada con graves dificultades de salud física

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y mental, así como con variables intrapersonales y contextuales que deberían considerarse en conjunto para la intervención exitosa de las víctimas, incluyendo sus familias y el entorno escolar.

Palabras clave: Violencia en el noviazgo, adolescentes, victimización, salud mental, factores de riesgo.

Resumo:

Escopo. Examinar a relação entre um conjunto de variáveis com a vitimização por violência no namoro, entre 811 adolescentes de 12 a 19 anos de idade, vinculados a várias instituições educativas de dois cidades intermedias da Colômbia. Metodologia. Foram usadas as versões em castelhano do Conflict in Adolescent Dating Relationships Inventory (CADRI), o Sistema de Avaliação da Conduta de Crianças e Adolescentes versão auto informe (BASC-S3) e a Lista de Verificação de 90 Sintomas Revisada (SCL-90-R) e um questionário de auto informe de variáveis psicológicas, sendo implementada a análise de correlação e uma regressão lineal múltipla. Resultados. A frequência do maltrato recebido correlacionou significativamente (p ≤ 0.05) com variáveis clínicas como somatização, depressão, ansiedade, uso de sustâncias, intentos de suicídio e desajuste clínico, rasgos de personalidade como procura de sensações e atipicidade, e variáveis contextuais como desajuste escolar, atitude negativa para a escola, maltrato físico, abandono paterno e materno e ruins relações com os pais. Todas estas variáveis explicaram o 18.1% da variação de vitimização. O uso de maconha, vários sintomas psicopatológicos e a relações ruins maternas predisseram significativamente a vitimização. Conclusão. A vitimização poderia estar relacionada com graves dificuldades de saúde física e mental, assim como com variáveis interpessoais e contextuais que deveriam ser consideradas em conjunto para a intervenção exitosa das vítimas, incluindo as suas famílias e o entorno escolar.

Palavras-chave: Violência no namoro, adolescentes, vitimização, saúde mental, fatores de risco.

Introduction

The high percentages of adolescents and single young adults that have reported to have been the object of violence from their partners, and the physical and mental issues that have been related to this phenomena, have led to considering violence within adolescent dating relationships as a public health matter (East, & Hokoda, 2015; Foshee, McNaughton, Gottfredson, Chang, & Ennett, 2013; Howard, Debnam, & Wang, 2013; Lormand et al., 2013; McCauley, Breslau, Saito, & Miller, 2015; Niolon et al., 2015; Wincentak, Connolly, & Card, 2017).

Several studies indicate that victims could present difficulties such as depression, anxiety, low self-esteem, ideation and suicidal behavior, somatic complaints, consumption of alcohol, cigarettes and drugs, inappropriate weight control methods, physical injuries, sexual risk behaviors, poor academic performance, and problems at school (Foshee et al., 2013; Goncy, Sullivan, Farrell, Mehari, & Garthe, 2017; Haynie et al., 2013; Johnson et al., 2017; Lormand et al., 2013; Martz, Jameson, & Page, 2016; Rubio-Garay, Carrasco, Amor, & López-González, 2015; Van Ouytsel, Ponnet, & Walrave, 2017, Vézina et al., 2015). Hébert, Lavoie, Vitaro, McDuff, and Tremblay (2008), for example, studied the risk of developing an internalizing disorder or an externalizing disorder among 774 Canadian adolescents based on the presence or absence of a history of child sexual abuse and dating violence victimization. The authors concluded that the risk of presenting an internalizing disorder was 10 times greater among those people who suffered from both circumstances, almost seven times higher in the case of externalizing disorders.

In turn, these mental health difficulties could increase the probability of being a victim of dating violence. McCauley et al. (2015) examined the probability of being a victim and/or a perpetrator of physical violence in a dating relationship at the age of 21 or older based on a psychiatric evaluation carried out before the participants had their first dating experience. The data was obtained from 5112 Americans who took part in a survey that was carried out nationwide. It was found that the risk of being a victim of physical violence was higher (ODDS higher than 1.50) among the participants who met the diagnostic criteria of 9 out of the 13 disorders examined, including dysthymia, generalized anxiety disorder, bipolar disorder, intermittent explosive disorder, attention deficit hyperactivity disorder, oppositional defiant disorder, conduct disorder, alcohol and substance abuse. The risk was higher in those who presented an externalizing disorder.

Howard et al. (2013) examined the risk of being a victim of physical dating violence based on the data offered by the adolescent women who participated in the National Youth Risk Behavior Survey carried out in secondary schools of the United States between 1999 and 2009. They found that the risk was higher in those who reported feelings of sadness and hopelessness, suicidal ideation and physical fights.

Similarly, a study carried out by Durant et al. (2007), among 3920 university students in the State of North Carolina, found that the risk of having been the victims in a fight during a dating relationship was higher among those males who reported smoking, using amphetamines, having consumed alcoholic drinks at the age of 15 or less, having recently been the object of a threat by someone who was intoxicated and among those who were older. Likewise, Van Ouytsel et al. (2017) found that the probability of being a victim of dating violence was greater among adolescents who had consumed alcohol at a younger age, who had used marijuana or who had been involved in acts of vandalism, according to data provided by 466 Belgian teenagers.

The results of the scarce investigations carried out in Latin America indicate similar difficulties to those found in the previously mentioned studies. Thus, Rivera, Allen, Rodríguez, Chávez, & Lazcano (2006), from a sample of 4587 female students from 12 to 24 years old from Morelos (Mexico), reported that victimization was highly related to depression, tobacco consumption, alcohol abuse, poor academic performance and, a history of sexual relations. On the other hand, Saldivia, and Vizcarra (2012), reported a statistically significant relation between drug consumption and being a victim of physical and psychological dating violence, according to a sample of 250 students (male and female), in the south of Chile.

As a whole, the results of these investigations indicate that dating violence in adolescence could affect the development and psychological well-being of the victims. Therefore, the identification and early intervention of victims is very important to prevent more serious alterations and victimization in adulthood (Choi, Weston, & Temple, 2017; Howard et al., 2013).

In Colombia, there have not been published studies regarding mental health issues associated with dating violence, despite the fact that two investigations reported significant percentages of adolescents and young adults who are the victims of this form of violence. Thus, Rey (2009) found that among 403 male and female university students between 15 and 30 years old, 82.6% had been, at least once, the object of some type of maltreatment from their partners, regardless of their sex. Martínez, Vargas, and Novoa (2016), for their part, found that among 589 secondary and university students between 12 and 22 years old, 70.9% had been, at least once, the object of some maltreatment from their partners.

On a national level, the only information available about dating violence comes from the National Institute of Legal Medicine and Forensic Science (*Instituto Nacional de Medicina Legal y Ciencias Forenses*, 2018), which in the year 2017 registered 50,072 cases of intimate partner violence (123 cases per 100,000 inhabitants), with 20.80% of the cases located in the range of 20 to 24 years old and 7.79% in the range of 10 to 19. Therefore, the acknowledgment of these difficulties is a key element, for it could provide guidelines for the detection of cases in educational institutions and communities, and these could lead to the implementation of alternatives of treatment and tertiary prevention of the consequences of maltreatment, which could benefit a significant number of Colombian adolescents.

Based on the above, the objective of this study was to examine the relationship between a set of variables with dating violence victimization among Colombian male and female adolescents aged 12 to 19 years old. Taking review articles into account (Capaldi, Knoble, Shortt, & Kim, 2012; Rubio-Garay et al., 2015), clinical and intrapersonal variables were taken into account, such as psychopathological and adjustment symptoms, as well as contextual or interpersonal variables, including adjustment to school, relations with parents, siblings, teachers and peers.

Method

Participants

There were 811 adolescents aged 12 to 19 years old (M = 15.64; SD = 1.51), 473 women (58.3%) and 338 men (41.7%), selected non-randomly according to availability from 15 secondary school education institutions of two intermediate cities of Colombia (Tunja and Yopal), between grades 7 and 11. The number of romantic relationships most frequently reported by these adolescents was two, with an average duration of 7.01 months (present relationship) and 6.78 months (previous relationship). 85.7% (n = 696) reported being heterosexual, 2.3% (n = 19) homosexual and 4.1% (n = 33) bisexual. The participants lived in sectors of low-low (14.4%), low (40.5%), middle low (32.3%), middle (8.5%), middle-high (3.9%) and high (0.4%) socio-economic strata. The parents of 35.9% (n = 290) of the participants were married, 22.6% (n = 183) in free union, and 33.7% (n = 272) had divorced or separated parents.

The inclusion and exclusion criteria were: (a) having or had a romantic relationship for over a month; (b) an age within adolescence, according to the World Health Organization (2017); and (c) not being married or cohabitating with their partner.

Instruments

Conflict in Adolescent Dating Relationships Inventory (CADRI).

This instrument was designed for adolescents and allows for reporting behaviors of physical, verbal-emotional, relational and sexual abuse, and threatening behavior to their partner in the last 12 months. As well as the same kind of behaviors exhibited by their partner in the same period of time through 25 pairs of items that are responded with a Likert scale with four response options: *never* (0), *rarely* (1), *sometimes* (2), and *often* (3). It presents another 20 items that provide evidence of an adequate solution to relationship conflicts, which were not taken into consideration in this study so as to reduce the duration of the application of the instruments. The frequency of victimization is calculated by adding the score obtained on the 25 items, with the minimum score being 0 and the maximum being 75 (Fernández-Fuertes, Fuertes, & Pulido, 2006; Wolfe et al., 2001).

The authors of the CADRI Spanish version (Fernández-Fuertes et al., 2006) reported a six-component structure which explained 55.1% of the variance and 51% when reducing the analysis to five components, with respect to the items of the aggressions suffered. Regarding reliability, alphas ranged from 0.51 to 0.79, with a general alpha of 0.86. In this investigation, the alphas obtained oscillated between 0.53 and 0.83, with a general alpha of 0.88.

Symptom Checklist-90 Revised (SCL-90-R).

This is a pen and pencil questionnaire which allows for the assessment of the presence of 90 psychopathological symptoms within the last weeks, through a Likert scale of five response options: *strongly disagree* (0), *disagree* (1), *neutral* (2), *agree and strongly agree* (3). Moreover, the instrument presents nine scales (Somatization, Obsessions, Interpersonal sensitivity, Depression, Anxiety, Hostility, Phobic anxiety, Paranoid ideation and Psychoticism), and a Global Severity Index, which averages the scores obtained in each item (González de Rivera et al., 1989; see the definitions of these scales and index in Sánchez, & Ledesma, 2009).

The authors of the Spanish version found a structure of eight factors that explained 32.46% of the variance, among 570 Spanish males and females between 18 and 74 years old, factors they considered equivalent to the original version. In this investigation, alphas oscillated between 0.73 and 0.91, with a general alpha of 0.98 (González de Rivera et al., 1989).

Behavior Assessment System for Children and Adolescents (BASC-S3).

This is a multimethod assessment system that allows for the evaluation of the children and adolescents through the reports of parents and teachers, a system of observation and a version of self-report that is used for children from eight years old (Reynolds, & Kamphaus, 1992). In this research, the self-report version was used, which includes 185 items with two response options (*True*: 1, *False*: 2) and the following indexes and rating scales according to González, Fernández, Pérez, and Santamaría (2004): (a) School Maladjustment: negative attitude toward school, and negative attitude toward teachers; (b) Clinical Maladjustment: sensation seeking, atypicality, locus of control, somatization, social stress, anxiety, depression, and sense of inadequacy; (c) Personal Adjustment: self-esteem, self-reliance, interpersonal relations, and relations with parents; and (d) Emotional Symptoms Index, a global indicator of emotional disturbances, particularly internalizing problems.

The reliability of the scales reported by Spanish researchers is between 0.70 and 0.80, correlating significantly with similar measures (González et al., 2004). The validity and reliability of this instrument was assessed with a sample of 1667 Colombian adolescents (Moreno-Méndez, Avendaño-Prieto, Rey-Anacona, & Redondo-Pacheco, 2020), revealing acceptable alpha indexes: Clinical Maladjustment ($\alpha = 0.78$), School Maladjustment ($\alpha = 0.54$), Emotional Symptoms Index ($\alpha = 0.88$), Personal Adjustment ($\alpha = 0.77$) and full scale ($\alpha = 0.67$). However, the adjustment indices obtained through the confirmatory factor analysis were higher when disregarding the Personal Adjustment index, which is why this index and its scales were not taken into account in this investigation.

Self-report questionnaire of psychological variables.

This questionnaire was developed to obtain information from adolescents through 49 items with different response options regarding alcohol and psychoactive substance consumption, sexual risk behaviors, and suicidal ideation, as well as suicide attempts and a history of physical and sexual abuse (Rey, 2012). In order to obtain information regarding the consumption of alcohol and other psychoactive substances, sexual risk behaviors, and suicidal ideation and suicide attempts, several items from the Youth Risk Behavior Surveillance System (Brener et al., 2004) were included and adapted, while for other items referring to a history of physical and sexual abuse, the items of a history of family violence developed by Renner, & Slack (2006) were taken into consideration. The questionnaire was revised by experts at a methodological and content level, and it was tested with a sample of male and female adolescents. According to the objective of the study, only items with a Likert-scale, referring to the consumption of alcoholic drinks and illegal substances, suicide attempts, relationships with parents, siblings, adults and peers and academic performance were taken into account.

Procedure

Authorization was requested for the selection of the participants in the 15 secondary school educational institutions. Afterward, students from 7th to 11th grades (male and female within the desired age range) were presented with the objective, the criteria for inclusion, the procedure and the ethical considerations of the

study. Those students who were interested and met the inclusion criteria were given a form of informed consent to be signed together with their parents, which contained the same information that had been provided to the students. The instruments were applied in a group to those students who handed in the form signed by them and their parents. The application and correction of the instruments were the responsibility of a professional psychologist, with the cooperation of research assistants, previously trained and supervised. The instruments were applied between November 08, 2016 and August 28, 2017.

Data Analysis

Correlational analysis between the frequency of the maltreatment suffered by the sentimental partner, reported in the CADRI Spanish version (Fernández-Fuertes et al., 2006), and the symptoms and mental health issues, was carried out with the Spearman formula for ordinal variables examined with the self-report questionnaire of psychological variables (Rey, 2012), and Pearson formula for the scales and indexes of the BASC-S3 (González et al., 2004) and SCL-90-R (González de Rivera et al., 1989). Later, a linear regression analysis with the intro method was carried out with the variables that significantly correlated with victimization, with the following criteria: probability of F to enter ≤ 0.05. In the resultant model, compliance with the assumptions of linearity, independence, homoscedasticity, normality, and non-collinearity was examined.

Results

Initially, the descriptive statistics of the behaviors of dating violence suffered by the participants are presented. Subsequently, the results of the correlation analyses carried out are presented to finish with the results of the multiple linear regression analysis.

Participants obtained an average score of 10.49 on the victimization scale of the CADRI Spanish version (Fernández-Fuertes et al., 2006), with a standard deviation of 0.32. The type of violence they suffered the most was verbal-emotional ($M = 6.96$, $SD = 0.19$), followed by sexual ($M = 1.25$, $SD = 0.06$), relational ($M = 0.83$, $SD = 0.05$), threatening behavior ($M = 0.75$, $SD = 0.05$) and physical ($M = 0.69$; $SD = 0.06$). Most of the participants (n = 757, 93.3%) reported having suffered, at least "rarely", one or more of the abusive behaviors that appear in this instrument.

In table 1, the results of correlations between the aggressions suffered and each of the variables examined with the scales and indexes of the SCL-90-R and BASC-S3 are presented. Statistically significant direct correlations ($p \leq 0.05$) were found between the frequency of abuse suffered and the points obtained in all the scales and the Global Severity Index of the SCL-90R, and all scales and indexes of BASC-S3, although almost all these correlations were low (less than 0.3).

TABLE 1

Correlations between the frequency of aggressions suffered and the difficulties examined with SCL-90R and BASC-S3 (Pearson's formula)

Variable	r	p
SCL-90R		
Somatization	0.26	0.000***
Obsessive-Compulsive	0.25	0.000***
Interpersonal sensitivity	0.29	0.000***
Depression	0.28	0.000***
Anxiety	0.27	0.000***
Hostility	0.35	0.000***
Phobic anxiety	0.19	0.000***
Paranoid ideation	0.32	0.000***
Psychoticism	0.34	0.000***
Global Severity Index	0.32	0.000***
BASC-S3		
Negative attitude toward school	0.11	0.002**
Negative attitude toward teachers	0.11	0.003**
Sensation seeking	0.24	0.000***
Atypicality	0.31	0.000***
Locus of control	0.22	0.000***
Somatization	0.18	0.000***
Social stress	0.22	0.000***
Anxiety	0.23	0.000***
Depression	0.19	0.000***
Sense of inadequacy	0.16	0.000***
Clinical Maladjustment	0.28	0.000***
School Maladjustment	0.21	0.000***
Emotional Symptoms Index	0.21	0.000***

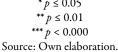* $p \le 0.05$
** $p < 0.01$
*** $p \le 0.001$.
Source: Own elaboration.

In table 2, the results of correlations between the aggressions suffered and each one of the variables examined with the self-report questionnaire of psychological variables are presented. Statistically significant direct correlations were found between the frequency of abuse suffered and: (a) how many times the participant had consumed alcoholic drinks in the last 30 days, (b) how many times the participant had gotten drunk in the last 30 days, (c) how many times the participant had consumed marijuana, (d) how many times the participant had tried to attempt suicide in the last 12 months, (e) how many times the participant had been physically punished violently by their parents or another caregiver, (f) felt neglected by the participant's father, and (g) felt neglected by the participant's mother. The correlations were inversely proportional with the age at which the participant consumed alcohol for first time, the relationships with people of the same age, the relationships with the participant's mother, and the relationships with the participant's father. However, all these correlations were low.

TABLE 2

Correlations between the frequency of aggressions suffered and ordinal items of the self-report questionnaire of psychological variables (Spearman's formula)

Variable	Rho	p
Age at which you consumed an alcoholic drink for the first time?	-0.09	.012*
How many times have you consumed alcoholic drinks in the last 30 days?	0.17	.000***
How many times have you gotten drunk in the last 30 days?	0.14	0.000***
Age at which you consumed marijuana for the first time?	0.09	0.27
In your life, how many times have you consumed marijuana?	0.15	0.000***
How many times have you consumed marijuana in the last 30 days?	-0.01	0.910
In your life, how many times have you consumed cocaine or crack?	0.01	0.689
In your life, how many times have you consumed inhalants?	0.03	0.447
In your life, how many times have you consumed *bazuco*?	-0.05	0.165
How many times have you tried to attempt suicide, in the last 12 months?	0.09	0.007***
How are your relationships with people the same age?	-0.13	0.000***
How are your relationships with adults?	-0.05	0.137
How many times have you been physically punished violently by your parents or another caregiver?	0.16	0.000***
Age at which you were physically punished violently for the first time	-0.07	0.220
Have you felt neglected by your father?	0.17	0.000***
Have you felt neglected by your mother?	0.14	0.000***
How many times have you run away from home?	0.09	0.112
How are your relationships with your mother or the person you consider as such?	-0.09	0.009**
How are your relationships with your father or the person you consider as such?	-0.11	0.004**
How are relations with your siblings?	-0.03	0.376
How has your academic performance been?	-0.00	0.952
How many times have you changed schools due to academic performance?	0.08	0.029
How many times have you repeated an academic year?	0.05	0.176

* *p* ≤ 0.05
** *p* ≤ 0.01
*** *p* < 0.000
Source: Own elaboration.

The linear regression analysis showed that all these variables explained 18.1% of the variance of the frequency of victimization: $R^2_j = 0.181$, $F(33, 602) = 5.03$ $p < 0.000$, and it presented collinearity indices close to one, thus reflecting the independence of the predictors. Furthermore, the autocorrelation of the values was calculated with the Durbin-Watson statistic, finding a $DW = 1.89$, which shows that there is no dependence on the calculated values. The variables that significantly predicted victimization were: (a) the scales of SCL-90-R of Obsessive-Compulsive ($B = -0.30$, $SE = 1.35$, $p = 0.010$; CI 95% [-6.14, -0,83]) and Anxiety ($B = -0.30$, $SE = 1.50$, $p = 0.018$; CI 95% [-6.53, -0.63]); (b) how many times the participant had consumed marijuana in his/her life ($B = 0.12$, $SE = 0.32$, $p = 0.005$; CI 95% [0.29, 1.55]), and (d) the relationships with the participant's mother ($B = 0.10$, $SE = 0.85$, $p = 0.029$; CI 95% [0.19, 3.51]).

Discussion

The study aimed to examine the relation between a set of variables with dating violence victimization in a group of male and female adolescents aged 12 to 19 years old. The results indicate a direct, statistically significant relationship between the frequency of abuse received and the number of suicide attempts committed in the last 12 months and with the scores obtained in the SCL-90R scales and the Clinical Maladjustment index of the BASC-S3. These correlations suggest that the aggressions received could be associated with several mental health difficulties, including suicidal behavior and personality alterations.

These results were confirmed by the statistically significant correlation found between this frequency and the Global Severity Index of the SCL-90R (González de Rivera et al., 1989), the Clinical Maladjustment index and the Emotional Symptoms Index of the BASC-S3 (González et al., 2004). Furthermore, the

results of the linear regression analysis indicate that victimization could be predicted by psychopathological symptoms (obsessions-compulsions, anxiety), the use of psychoactive substances, and poor maternal relationships.

These findings are consistent with the results of the studies reviewed by Rubio-Garay et al. (2015), which indicated a relationship between victimization, psychopathological alterations such as depression, anxiety and somatic complaints, personality alterations, and suicidal behavior. Similarly, Haynie et al. (2013), found a greater likelihood of presenting depressive symptoms and somatic complaints among adolescents who had suffered or exercised dating violence. While Van Ouytsel et al. (2017) reported a relationship between victimization and depression symptoms, and Martz et al. (2016) reported an increased risk of depression and suicidal behavior among victimized adolescents.

The abusive behaviors received also correlated significantly with the scales of Negative Attitude Toward School, Negative Attitude Toward Teachers and the index of School Maladjustment of the BASC-S3, which suggests that the victimization could be related to difficulties in the academic field. Similarly, Mengo, & Black (2016) examined the data of 77 female university students obtained through a program on sexual and couple violence and found that those who had experienced physical, verbal and sexual violence had a significant decrease in their average ratings. However, as these authors point out, more studies are required to examine the relationship between the victimization and the academic performance.

In relation to substances use, the results are consistent with several previous studies that examined the relationship of victimization with the consumption of alcohol and marijuana (Gonzalez-Guarda, Williams, Merisier, Cummings, & Prado, 2014; Haynie et al., 2013; Johnson et al, 2017; Martz et al., 2016; Parker, Bradshaw, Debnam, Milam, & Furr-Holden, 2015; Reyes, Foshee, Bauer, & Ennett, 2012; Shorey, McNulty, Moore, & Stuart, 2016). This research, also found a statistically significant inverse correlation with the age at which alcoholic drinks were consumed the first time. Similarly, Singh et al. (2015) found a lower age at the start of consumption of alcoholic beverages among adolescents with an abusive use of these substances that had been physically abused by their couple, while Van Ouytsel et al. (2017) reported that the probability of being victimized was higher among adolescents who had consumed alcohol at a younger age and had used marijuana.

The results also indicated that poor family relationships and family violence could be associated with victimization, because the frequency of abuse suffered correlated significantly with the number of times the participant was physically punished violently by their parents or other caregivers and the frequency with which they felt neglected by both the father and the mother. Also, this frequency correlated inversely with the quality of relationships with the father and the mother. These results are consistent with several studies that showed that violence in the family of origin could be related to victimization (Rubio-Garay et al., 2015), but regarding family relationships, further research documenting the relationship with victimization is required. Bolívar, Rey, and Martínez (2017) found, in that sense, a statistically significant negative correlation between the overall score of family functionality and the frequency of emotional and economical abuse received, among 548 Colombian high school students, suggesting that such functionality could be associated to victimization.

In conclusion, these results indicate that victimization could be related to severe physical and mental health difficulties and two general types of variables, which should be considered together for the successful intervention of the victims, involving the same adolescent, his/her family, and his/her school environment. These are: (a) clinical or intrapersonal variables, which could be divided into psychopathological symptoms such as somatic complaints, depression, anxiety, use of psychoactive substances, suicide attempts and clinical maladjustment, in general and negative personality traits such as sensation seeking and atypicality; and (b) contextual or interpersonal variables, which, in turn, can be divided into school variables, such as school maladjustment and negative attitude towards school and teachers, and family variables, such as physical

abuse, bad relationships and neglect of the parents. Likewise, these variables should be examined in academic settings by trained personnel to identify and refer potential victims to qualified personnel.

The strengths of this research include the number of participants, the participation of men and women from various educational institutions, the use of instruments that have adequate reliability and validity indexes and whose information could be integrated to enrich the analysis of the results. However, as weaknesses it must to be mentioned the non-participation of out-of-school adolescents. Furthermore, the selection of the sample was not randomized, and the self-report nature of the instruments used, could entail biases resulting from social desirability and memory failures common to most people. Correlation analysis, on the other hand, does not allow determining the direction of the relations examined. It is recommended to continue investigating the health difficulties associated to dating violence in other Colombian samples, through longitudinal designs, using different types of statistical analysis, and examining the mediating role of sociodemographic and contextual variables.

References

Bolívar, Y., Rey, C. A. y Martínez, J. A. (2017). Funcionalidad familiar, número de relaciones y maltrato en el noviazgo en estudiantes de secundaria [Family Functionality, Number of Relationships and Dating Violence in High School Students]. *Psicología Desde El Caribe, 34*(1), 59-74. doi: 10.14482/psdc.33.2.7290

Brener, N. D., Kann, L., Kinchen, S. A., Grunbaum, J. A., Whalen, L., Eaton, D., ... Ross, J. G. (2004). Methodology of the Youth Risk Behavior Surveillance System. *Morbidity & Mortality Weekly Report, 53*(12), 1-13.

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A Systematic Review of Risk Factors for Intimate Partner Violence. *Partner Abuse, 3*(2), 231-280. doi:10.1891/1946-6560.3.2.231

Choi, H. J., Weston, R., & Temple, J. R. (2017). A Three-Step Latent Class Analysis to Identify how Different Patterns of Teen Dating Violence and Psychosocial Factors Influence Mental Health. *Journal of Youth and Adolescence, 46*(4), 854-866. doi:10.1007/s10964-016-0570-7

Durant, R., Champion, H., Wolfson, M., Omli, M., McCoy, T., D'Agostino, R. B., Wagoner, K., & Mitra, A. (2007). Date Fighting Experiences among College Students: Are they Associated with Other Health-Risk Behaviors? *Journal of American College Health, 55*(5), 291-296. doi:10.3200/JACH.55.5.291-299

East, P. L., & Hokoda, A. J. (2015). Risk and Protective Factors for Sexual and Dating Violence Victimization: A Longitudinal, Prospective Study of Latino and African American Adolescents. *Journal of Youth and Adolescence, 44*(6), 1288-1300. doi:10.1007/s10964-015-0273-5

Fernández-Fuertes, A. A., Fuertes, A. y Pulido, R. F. (2006). Evaluación de la violencia en las relaciones de pareja de los adolescentes. Validación del Conflict in Adolescent Dating Relationships Inventory (CADRI) - versión española [Assessment of violence in adolescent dating relationships. Validation of the CADRI – Spanish version]. *International Journal of Clinical and Health Psychology, 6*(2), 339-358.

Foshee, V., McNaughton, H., Gottfredson, N., Chang, L., & Ennett, S. (2013). A Longitudinal Examination of Psychological, Behavioral, Academic, and Relationship Consequences of Dating Abuse Victimization among a Primarily Rural Sample of Adolescents. *Journal of Adolescent Health, 53*(6), 723-729. doi:10.1016/j.jadohealth.2013.06.016

Goncy, E. A., Sullivan, T. N., Farrell, A. D., Mehari, K. R., & Garthe, R. C. (2017). Identification of Patterns of Dating Aggression and Victimization among Urban Early Adolescents and their Relations to Mental Health Symptoms. *Psychology of Violence, 7*(1), 58-68. doi 10.1037/vio0000039

González, J., Fernández, S., Pérez, E. y Santamaría, P. (2004*). Sistema de Evaluación de la Conducta de Niños y Adolescentes* [Behavior Assessment System for Children and Adolescents]. Madrid: TEA.

González de Rivera, J. L., Derogatis, L. R., de las Cuevas, C., Gracia-Marco, R., Rodríguez-Pulido, F., Henry-Benítez, M, & Monterrey, A. L. (1989). *The Spanish version of the SCL-90-R. Normative data in the general population*. Towson: Clinical Psychometric Research.

Gonzalez-Guarda, R. M., Williams, J. R., Merisier, M., Cummings, A. M., & Prado, G. (2014). Acculturation, Risk Behaviors and Physical Dating Violence Victimization among Cuban-American Adolescents. *Journal of Pediatric Nursing, 29*(6), 633-640. doi:10.1016/j.pedn.2014.03.001.

Haynie, D., Farhat, T., Brooks-Russell, A., Wang, J., Barbieri, B., & Iannotti, R. (2013). Dating Violence Perpetration and Victimization among U.S. Adolescents: Prevalence, Patterns, and Associations with Health Complaints and Substance Use. *Journal of Adolescent Health* (53), 194-201. doi:10.1016/j.jadohealth.2013.02.008

Hébert, M., Lavoie, F., Vitaro, F., McDuff, P., & Tremblay, R. (2008). Association of Child Sexual Abuse and Dating Victimization with Mental Health Disorder in a Sample of Adolescent Girls. *Journal of Traumatic Stress, 21*(2), 181-189. doi:10.1002/jts.20314

Howard, D. E., Debnam, K. J., & Wang, M. Q. (2013). Ten-Year Trends in Physical Dating Violence Victimization among US Adolescent Females. *Journal of School Health, 83*(6), 389-399. doi:10.1111/josh.12042

Instituto Nacional de Medicina Legal y Ciencias Forenses. (2018). *Forensis 2017 datos para la vida* [Forensis 2017 data for the life]. Recuperado de: https://www.medicinalegal.gov.co/cifras-estadisticas/forensis

Johnson, R. M., LaValley, M., Schneider, K. E., Musci, R. J., Pettoruto, K., & Rothman E. F. (2017). Marijuana Use and Physical Dating Violence among Adolescents and Emerging Adults: A Systematic Review and Meta-Analysis. *Drug and Alcohol Dependence, 174*, 47-57. doi:10.1016/j.drugalcdep.2017.01.012

Lormand, D. K., Markham, C. M., Peskin, M. F., Byrd, T. L., Addy, R. C., Baumler, E., & Tortolero, S. R. (2013). Dating Violence among Urban, Minority, Middle School Youth and Associated Sexual Risk Behaviors and Substance Use. *Journal of School Health, 83*(6), 415-421. doi:10.1111/josh.12045

Martínez, J. A., Vargas, R. y Novoa, M. (2016). Relación entre la violencia en el noviazgo y observación de modelos parentales de maltrato [Relation between dating violence and parental maltreatment model observation]. *Psychologia: Avances de la Disciplina, 10*(1), 101-112.

Martz, D., Jameson, J. P., & Page, A. (2016). Psychological Health and Academic Success in Rural Appalachian Adolescents Exposed to Physical and Sexual Interpersonal Violence. *American Journal of Orthopsychiatry, 86*(5), 594-601. doi:10.1037/ort0000174

McCauley, H. L., Breslau, J. A., Saito, N., & Miller, E. (2015). Psychiatric Disorders Prior to Dating Initiation and Physical Dating Violence before Age 21: Findings from the National Comorbidity Survey Replication (NCS-R). *Social Psychiatry and Psychiatric Epidemiology, 50*(9), 1357-1365. doi:10.1007/s00127-015-1044-z

Mengo, C., & Black, B. M. (2016). Violence Victimization on a College Campus Impact on GPA and School Dropout. *Journal of College Student Retention: Research, Theory & Practice, 18*(2), 234-248.

Moreno-Méndez, J. H., Avendaño-Prieto, B. N., Rey-Anacona, C. A., y Redondo-Pacheco, J. (2020). *Propiedades psicométricas del Sistema de Evaluación de la Conducta de Niños y Adolescentes versión de auto informe (BASC-S3) en adolescentes colombianos [psychometric properties of the child and adolescent behavior assessment system -version of self-report (BASC-S3) in Colombian adolescents].* Manuscrito no publicado sometido a consideración.

Niolon, P. H., Vivolo-Kantor, A. M., Latzman, N. E., Valle, L. A., Kuoh, H., Burton, T., ... Tharp, A. T. (2015). Prevalence of Teen Dating Violence and Co-Occurring Risk Factors among Middle School Youth in High-Risk Urban Communities. *Journal of Adolescent Health, 56*(2), 5-13. doi:10.1016/j.jadohealth.2014.07.019

Parker, E., Bradshaw, C., Debnam, K., Milam, A. J., & Furr-Holden, C. D. (2015). Exploring the Effects of Alcohol and Marijuana Use on Experience of Teen Dating Violence among High School Students in Maryland. *Drug and Alcohol Dependence, 146*(1), e62. doi:10.1016/j.drugalcdep.2014.09.537

Renner, L. M., & Slack, K. S. (2006). Intimate Partner Violence and Child Maltreatment: Understanding Intra- and Intergenerational Connections. *Child Abuse & Neglect, 30*(6), 599-617. doi:10.1016/j.chiabu.2005.12.005

Rey, C. A. (2009). Maltrato en el noviazgo de tipo físico, psicológico, emocional, sexual y económico: Un estudio exploratorio [Physical, psychological, emotional, sexual, and economic abuse in dating couples: An exploratory study]. *Acta Colombiana de Psicología, 12*(2), 27-36.

Rey, C. A. (2012). *Estudio descriptivo comparativo de adolescentes varones y adolescentes mujeres que presentan trastorno disocial de inicio infantil y trastorno disocial de inicio adolescente [Comparative descriptive study of male adolescents*

and female adolescents with childhood-onset conduct disorder and adolescent-onset conduct disorder]. Research report, Pedagogical and Technological University of Colombia.

Reyes, H. L. N., Foshee, V. A., Bauer, D. J., & Ennett, S. T. (2012). Developmental Associations between Adolescent Alcohol Use and Dating Aggression. *Journal of Research on Adolescence, 22*(3), 526-541. doi:10.1111/j.1532-7795.2012.00799.x

Reynolds, C. R., & Kamphaus, R. W. (1992). *Behavior Assessment System for Children*. Minnesota, United States: American Guidance Service.

Rivera, L., Allen, B., Rodríguez, G., Chávez, R., y Lazcano, E. (2006). Violencia durante el noviazgo, depresión y conductas de riesgo en estudiantes femeninas (12-24 años) [Dating violence and associations with depression and risk behaviors: female students in Morelos, Mexico]. *Salud Pública de México, 48*(2) 288-296.

Rubio-Garay, F., Carrasco, M. A., Amor, P. J. y López-González, M. A. (2015). Factores asociados a la violencia en el noviazgo entre adolescentes: una revisión crítica [Adolescent dating violence related factors: A critical review]. *Anuario de Psicología Jurídica, 25*(1), 47-56. doi:10.1016/j.apj.2015.01.001

Saldivia, C. y Vizcarra, B. (2012). Consumo de drogas y violencia en el noviazgo en estudiantes universitarios del sur de Chile [Drug abuse and dating violence in university students in southern Chile]. *Terapia Psicológica, 30*(2), 43-49. doi:10.4067/S0718-48082012000200004

Sánchez, R. O. y Ledesma, R. D (2009). Análisis psicométrico del Inventario de Síntomas Revisado (SCL-90-R) en población clínica [Psychometric analysis of the Symptom Checklist-90 Revised (SCL-90-R) in clinical population]. *Revista Argentina de Clínica Psicológica, 18*(3), 265-274.

Singh, V., Epstein-Ngo, Q., Cunningham, R., Stoddard, S., Chermack, S., & Walton, M. (2015). Physical Dating Violence among Adolescents and Young Adults with Alcohol Misuse. *Drug and Alcohol Dependence, 153*, 364-368. doi:10.1016/j.drugalcdep.2015.05.003

Shorey, R. C., McNulty, J. K., Moore, T. M., & Stuart, G. L. (2016). Being the Victim of Violence During a Date Predicts Next-Day Cannabis Use among Female College Students. *Addiction, 111(3),* 492-498. doi:10.1111/add.13196

Van Ouytsel, J., Ponnet, K., & Walrave, M. (2017). The Associations of Adolescents' Dating Violence Victimization, Well-Being and Engagement in Risk Behaviors. *Journal of Adolescence, 55*, 66-71. doi:10.1016/j.adolescence.2016.12.005

Vézina, J., Hébert, M., Poulin, F., Lavoie, F., Vitaro, F., & Tremblay, R. (2015). History of Family Violence, Childhood Behavior Problems, and Adolescent High-Risk Behaviors as Predictors of Girls' Repeated Patterns of Dating Victimization in Two Developmental Periods. *Violence Against Women, 21*(4), 435-459. doi:10.1177/1077801215570481

Wincentak, K., Connolly, J., & Card, N. (2017). Teen Dating Violence: A Meta-Analytic Review of Prevalence Rates. *Psychology of Violence, 7*(2), 224-241. doi:10.1037/a0040194

Wolfe, D. A., Scott, K., Reitzel-Jaffe, D., Wekerle, C., Grasley, C., & Pittman, A. L. (2001). Development and Validation of the Conflict in Adolescent Dating Relationships Inventory. *Psychological Assessment, 13*, 277-293.

World Health Organization. (2017). *Recognizing adolescence*. Retrieved from: http://apps.who.int/adolescent/second-decade/section2/page1/recognizing-adolescence.html

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