



Relationship between Maltreatment in Childhood and Intimate Partner Violence

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Authors' contributions

This work was carried out in collaboration between all authors. Authors KS formulated the research topic, designed the study and supervised the study. Authors KS and NŠ wrote first, the second and the final drafts of the manuscript. Author AD managed the analyses of the study and proof ready all the drafts and made necessary corrections. All authors read and approved the final manuscript.

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ABSTRACT

Aims: The present study aimed to examine the relationship between different forms of maltreatment in childhood with the perpetration of violent behaviour and exposure to violence in partner relationships.

Methodology: The sample comprised 147 participants (100 women and 47 men) involved in intimate partner violence and 200 control subjects (100 women and 100 men). A child abuse questionnaire was used for the assessment of multiple types of abuse occurring during childhood. Partner violence was assessed using Revised Conflict Tactics Scale (CTS2).

Results: The findings indicated that exposure to maltreatment in childhood had a significant effect on intimate partner violence. Significant differences were observed between the participants exposed to physical and psychological abuse, neglect and those witnessing family violence through partner violence compared to the control group. Forms of violence committed by fathers and mothers had a more important effect on partner violence compared to the violence committed by other persons.

Conclusion: The results obtained from this study can potentially help in the development of

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various prevention programmes for partners' exposure to intimate partner violence and other violence in childhood.

Keywords: Maltreatment in childhood; intimate partner violence; transgenerational transmission of violence; social learning theory.

1. INTRODUCTION

The term intimate partner violence (IPV) describes physical, sexual or psychological harm inflicted by a current or former partner or spouse [1]. It is not limited to those in a former or current legal marriage or cohabitation, but also includes individuals in dating relationships [2].

Recent studies clearly indicate a relationship between intimate partner violence and maltreatment during childhood [3]. Maltreatment in childhood is defined as physical and emotional abuse, sexual abuse, neglect and the exploitation of children, resulting in actual or potential harm to the child's health, development or dignity [4]. In addition, witnessing family violence can also be considered a form of child abuse, since it affects the physical health of children and causes long-term psychological adjustment and social relationships problems [5,6].

A number of studies have also found that exposure to physical abuse in childhood increases the risk for intimate partner violence [7-11]. Women who had been physically abused in childhood were nearly five times more likely to be exposed to serious intimate partner violence than women who had not been abused in childhood [7,12]. McKinney et al. [13] examined the relationship between maltreatment in childhood and intimate partner violence in a sample of 1615 couples in the United States. The results showed that men who had been exposed to physical abuse in childhood had an increased risk for reciprocal partner violence.

A small number of studies investigated the relationship between emotional abuse in childhood and violence in intimate partner relationships. According to Schumacher et al. [14], emotional maltreatment in childhood is a significant risk factor for exposure to intimate partner violence in adulthood. In addition, Dutton et al. [15] found exposure to verbal and psychological abuse in childhood to be related to physical abuse in intimate partner relationships. Thus far, studies have not shown a consistent relationship between exposure to sexual abuse in childhood and intimate partner violence.

Studies have found a significant relationship for women and men between sexual abuse in childhood and exposure to psychological, physical and sexual abuse by partners [11,16-20]. Research findings about perpetrating intimate partner violence show a high risk for the initiation of violence among those exposed to sexual abuse in childhood [21]. According to the results of Schumacher et al. [14], childhood sexual abuse has been related to the physical abuse of a woman in an intimate partner relationship.

Studies note that witnessing interparental violence is one of the significant risk factors for exposure to and the committing of violence within dating relationships [22]. Women who have witnessed family violence in childhood had a higher risk for experiencing physical and psychological partner violence [7]. Schewe et al. [10] found a significant relationship between witnessing family violence during childhood and exposure to sexual abuse by a partner. Witnessing family violence in childhood is also associated with an increased risk of reciprocal intimate partner violence in both men and women [11,13]. Partners who had witnessed family violence were twice as likely to abuse their own partners compared to partners who had not witnessed family violence in childhood [14]. Witnessing mutual physical abuse of a mother and father, as well as verbal aggression between parents increased the risk of physical intimate partner violence [14,23]. Additionally, a child witnessing a father abusing the mother represents the strongest risk factor for transmitting psychological aggression by men against women [24]. Some studies have investigated the relationship between intimate partner violence and neglect during childhood. Ehrensaft et al. [25] found exposure to neglect in childhood to be a risk factor for partner violence. Some studies showed that men who assaulted their female partner were more likely to have been exposed to neglect in early childhood [23].

Numerous social learning theories have been applied to explain the relationship between childhood abuse and intimate partner violence. These theories mostly explain this relationship through transgenerational transmission of

violence [26,27]. Nevertheless, there are many different explanations for relationship between exposure to childhood abuse and intimate partner violence. Bandura [28] reported that violent behaviour is learned by observing others and believes that individuals tend to mimic the behaviour of authority figures, as well as the behaviour of others within the environment that are important to them. Individuals will exhibit modeled behaviour if it results in valued outcomes. On the basis of observational learning, the victims of maltreatment in childhood enter into adulthood with the belief that violence is an appropriate method for resolving conflict. In addition to aggression, victims of maltreatment during childhood may respond with intimate partner violence due to a feeling of "learned helplessness". These feelings of helplessness or the inability to cope with the trauma may have resulted from a perceived absence of control within the family environment [29]. Kernsmith [30] states that children exposed to direct (emotional, physical or sexual abuse) and/or indirect (witnessing family violence) forms of abuse in childhood develop norms that consider violence as an acceptable way for resolving conflict within a relationship. By perceiving violence as acceptable behaviour, these individuals tend to become the perpetrators or victims of intimate partner violence. Akers and Jennings [31] emphasized the significant role of learning theory on the effect of violence. Generally, the researchers acknowledged the importance of positive and negative reinforcement in the learning process of violence. Children exposed to family violence learn to justify acts of violence and benefit from them. If violence is perceived as a way of solving problems, it increases the likelihood that children will replicate the same behaviour in adulthood.

To our knowledge, few studies have investigated the relationship between different forms of maltreatment in childhood and intimate partner violence. Furthermore, there has been no recently conducted research that has, along of wide range of abuse and neglect in childhood, made identification of perpetrators and victims of violence, as well as eventual difference between those two group regarding the source of violence.

Since previously conducted studies have found a relationship between childhood abuse and intimate partner violence [32], the current research might contribute additional information

to understanding intimate partner violence through the transgenerational violence theory.

2. MATERIALS AND METHODS

2.1 Participants

The survey involved 347 participants from the Federation of Bosnia and Herzegovina. The sample was shaped on the basis of officially reported cases of intimate partner violence in the Federation of Bosnia and Herzegovina. The location of the research and the number of respondents was proportional to the number of registered cases of intimate partner violence in all the cities of the Federation of Bosnia and Herzegovina. The research included three group of participants: a group of participants exposed to partner violence, a group of perpetrators of partner violence and two controlled groups of subjects (which were not registered at the Centre for Social Service as victims or perpetrators of intimate partner violence).

The study aimed to examine 100 individuals who had been exposed to violence and 100 individuals who were perpetrators of violence. During the study, a total number of 420 persons were contacted. Participation in the study declined to 12 people identified as victims and 61 people identified as perpetrators of violence. The study took into account ethical rules such as having the right to refuse participation, as well as not asking participants about their reasons for doing so. Due to the large number of persons who refused to participate in the study, the primary inclusion of the perpetrators of intimate partner violence, the limited time frame for conducting the survey, as well as the limited number of reported cases of intimate partner violence, the research was carried out on a total of 347 participants of which 100 of the participants were victims and 47 perpetrators of intimate partner violence.

In the control group, 200 subjects participated (100 men and 100 women not identified as perpetrators or victims of intimate partner violence). The control group was composed of people who came to the Centre for Social Service for other reasons and who agreed to participate in the study.

2.2 Instruments

Children's exposure to multiple types of abuse in childhood was tested using a Child Abuse Questionnaire [33]. The questionnaire was

intended for a retrospective study that explored five type of abuse: emotional (psychological) abuse, physical abuse, neglect, witnessing family violence and sexual abuse. The scores were not used for simple categorization into "abused" and "non-abused", but a nuanced picture was obtained by asking the participants to assess the frequency of exposure to abuse on items related to the abusive behaviour of parents and other adults. The behaviour of mothers, fathers and others was rated separately, allowing for their mutual comparison and conclusion whether the child had been abused by one or more individuals. On the scale for assessing neglect, respondents were asked only about the behaviours of their father and mother. For each item, participants assessed the frequency of their exposure to such behaviour ("never," "sometimes," or "often;" on the scale of sexual abuse, "never," "once," "twice," or "thrice or more"). In order to gain some insight into the circumstances and characteristics of sexual abuse, at the end of the questionnaire, a number of questions were provided that was answered only by those who had experienced some type of sexual abuse prior to the age of 14. Based on the respondents' answers, it was possible to calculate a summary score for each of the five scales assessing different types of abuse, as well as a total result for the entire questionnaire. Furthermore, it was possible to use the items summatively, i.e., to sum up the results for mother, father and other adults for each possible source of behaviour and thus create a new summative variable. Composite results for each form of abuse (for emotional, physical and sexual abuse, neglect, and witnessing family violence) could also be obtained [33]. In this way, higher scores indicated more frequent abusive behaviour.

The internal consistency coefficients (Cronbach's alpha) ranged from 0.80 for the subscale of physical abuse to 0.92 for the subscale of emotional abuse. Cronbach's alpha for the total emotional and physical abuse, neglect and witnessing family violence was 0.96. The reliability of the subscales of sexual abuse was not possible to calculate, due to the large number of missing data or large number of circled zeros (no variance). Additionally, the results for the scales of sexual abuse were not recorded, because 60% of male participants did not respond to questions about sexual abuse, while only six men indicated having experienced some form of sexual abuse in childhood. Regarding the data for the female sample, 42% did not respond

to these items; only 18 women indicated having experienced some kind of sexual abuse during childhood. The authors of the questionnaire gave permission for using the scale in the current research.

On the registered participant of intimate partner violence, perpetrators and exposed to violence, intimate partner violence was assessed using the Revised Conflict Tactics Scale (CTS2): Partner-to-Partner [34,35]. The Scale was designed to measure the range of tactics used in response to conflict with the partner during the past year [35]. The 78-item scale (39 behaviors or experiences, each asked once for respondent and once for partner) is comprised of five subscales: negotiation, psychological aggression, physical assault, sexual coercion and injury. The respondent assess the frequency with which acts were used during conflict with a partner in the past year using a 6-point scale ranging from "never" to "20 or more times". There are also response options of "Never in the last year, but did happen before that" and "This has never happened."

There are several method of scoring the Conflict Tactics Scales. The simplest is to add the response category code values for each scale to create a sum scale. A mean score can also be used as a measure of distinction between abused and non-abused. Behaviors, or types of behaviors, can also be scored dichotomously as "present" or "not present". Dichotomized scores are used in the calculation of the frequency. Higher scores on the subscales indicate more use of the tactic or of a domain of tactics. Author states that internal consistency ranges from the .79 to .95 for the subscales [35]. In our study coefficients are in the acceptable range with Cronbach's alpha from .80 to .94.

On the control group of participants, intimate partner violence was assessed using three items that defined the commission of violent behaviour and exposure to violent behaviour in the past year. On the basis of "yes" answers to one or more items, respondents were categorized as perpetrators of intimate partner violence or a person exposed to intimate partner violence. For the categorization of committing violence, the following items were used: I intimidate a partner to hit, push or throw something at him/her, which would/could hurt him/her. I slapped, kicked or pushed him/her. I forced a partner to have sex with me when he/she did not want to. For the categorization of exposure to partner violence the following items were used: My partner had

intimidated me by hitting, pushing or throwing something at me, which would/could hurt me. My partner slapped, kicked or pushed me. My partner forced me to have sex when I did not want to.

2.3 Procedure

Study has been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards.

The research was conducted by psychologists and social workers from the Centre for Social Service. A random sampling technique was used for the selection of participants. Therefore, the first identified perpetrator or individual exposed to partner violence that had been referred to the Centre for Social Service during the research was chosen to participate. If a person declined to give consent for participation in the research, the following person would be included according to the same criteria. The control group was composed of people who came to the centre to accomplish other functions and who were not recorded as perpetrators of violence or having been exposed to partner violence in the past year, based on the assessment of intimate partner violence at the Centre for Social Service. All participants were informed about the purpose of the research and all other necessary information (participant anonymity, the right to decline participation in the study, etc.). They were given general instructions prior to participating in the research. Once they understood the instructions, they signed a consent form allowing their participation in the survey. After completing the questionnaires, they sealed them in an envelope and placed them in a collection box located on a desk. While completing the questionnaire, only one examiner was present. After completing the test, participants were informed about who to contact for additional information related to the survey.

3. RESULTS

The average age of the total sample was 38(sd=11.88). Among the participants categorized as perpetrators of partner violence, the average age was 41.89(sd=10.10). The average age obtained for the sample of participants exposed to partner violence was 37.14(sd=11.48). Compared to the perpetrators of partner violence, the average age of the control group was 39.79(sd=12.17). Compared to the persons exposed to violent behaviour, the

average age of the control group was 38.30(sd=12.55).

The preliminary analysis, which included the application of a t-test for independent samples, showed no statistically significant difference in the ages between the perpetrators of partner violence and the control groups ($t=1.029$, $df=145$, $p=0.305$), or between those who had been exposed to intimate partner violence and the control groups ($t=0.682$, $df=198$, $p=0.496$). The obtained data allowed for the comparison of the results concerning partner violence and a history of childhood abuse in the primary part of the study.

The first part of the main analysis involved testing the differences in exposure to various forms of childhood abuse among the perpetrators of violence and control groups using t-tests for independent samples (Table 1).

Scores on the scales of maltreatment in childhood were summarized without taking into account the perpetrators of the abuse. The results indicated significantly larger exposure to all forms of childhood abuse among the perpetrators of partner violence, with high effect sizes calculated as Cohen's d . As was expected, individuals exposed to maltreatment in childhood were more vulnerable to all forms of the examined partner violence compared to the control group of subjects. The above was analysed and supported by summarizing the results of the subscale of maltreatment in childhood, regardless of the perpetrator of abuse (Table 1).

Analysis of the results concerning the perpetrators of intimate partner violence and persons exposed to intimate partner violent behaviour showed that the perpetrators of violence had been more exposed to emotional and physical abuse during childhood and had a small Cohen's d effect size (Table 1).

The second part of the analysis involved the use of a t-test for independent samples in order to test the differences in exposure to various forms of childhood abuse by the mother, father and other persons between the perpetrators of intimate partner violence and control groups (Table 2). In terms of the father as the perpetrator of childhood abuse, the results showed a significantly greater exposure to childhood abuse from fathers among the perpetrators of violence to the control group. The calculated Cohen's d effect size was high ($d >$

0.80) for all forms of abuse in childhood. Regarding the mother, results also showed significantly greater exposure to childhood abuse from mothers among the perpetrators of violence than participants in control group. Cohen's *d* was highest for the subscales of emotional and physical abuse. Regarding exposure to childhood abuse from the other people, significant differences between the perpetrators of violence and control groups were obtained only in the case of emotional abuse. Perpetrators of partner violence were more likely to have been exposed to emotional abuse during childhood from other persons compared to the control group. However, Cohen's *d* indicated a low effect size in this instance.

Further analysis included the testing of differences regarding the exposure to various forms of abuse in childhood among participants exposed to partner violence and the control group (Table 3). Those who had been exposed to partner violence were more frequently exposed to all forms of childhood abuse by the father. Concerning the mother as perpetrators of maltreatment in childhood, individuals exposed to partner violence had been significantly more exposed to emotional and physical abuse and neglect in childhood by the mother than participants in control group. The highest effect size was obtained for the subscale of neglect. According to the Cohen criteria, the obtained effect was categorized as having a medium effect size. Individuals exposed to partner violence were also more exposed to emotional abuse, physical abuse and witnessing abuse by other persons during childhood. Obtained effect sizes were moderate for emotional and physical abuse and lower for witnessing abuse.

Finally, a comparison was made of the results on the scale of abuse among those exposed to partner violence and the perpetrators of intimate partner violence (Table 4). Significant differences between those exposed to violence and perpetrators of violence were found for emotional abuse, physical abuse and neglect during childhood by the father. Compared to the participants who were exposed to the intimate partner violence, perpetrators of intimate partner violence were significantly more exposed to these forms of abuse in childhood. Cohen's *d* showed medium effect sizes in this instance. No significant difference was found in terms of exposure to witnessing the violent behaviour perpetrated by the father between these two groups. For mothers and others, no significant

differences were found in the exposure to violence between the perpetrators of intimate partner violence and those who had been exposed to intimate partner violence (Table 4).

4. DISCUSSION

There are several theoretical models that can explain relationship between maltreatment in childhood and intimate partner violence. According to the model of learned helplessness, a person exposed to partner violence may experience feelings of helplessness and a loss of control, which may be rooted in childhood experiences. The feeling of losing control, developed in childhood, can lead to a reduced sense of self-efficacy, lower levels of self-esteem and a lower sense of power in adult relationships [36]. It is important to emphasize that the model of learned helplessness is not universally applicable, however, because many women exposed to childhood abuse did not become victims of intimate partner violence. However, this model may provide an explanation for the transgenerational transmission of violence. Furthermore, through the experience of childhood abuse, stereotypes related to intimate relationship dominated by men can be developed, which may affect the victims response on partner violence [36]. In the end, two significant risk factors that may contribute and mediate to the "cycle of violence" are affect dysregulation and dissociation. Experience of early psychological trauma may be associated with emotional dysregulation. Children who had some traumatic experience, such as child abuse, are more prone to suffer from problems with affect regulation. Recent studies have showed that low levels of affect and emotional reactivity may be associated with aggression and violence [37,38]. Trauma is probably important and sufficient condition for development of affect dysregulation, which would in the end lead to aggressive behavior. On the other, dissociative "flashbacks" to prior traumatic events can drive violent behavior because individuals start to believe that are again in the danger situation and start to use aggressive mechanisms of defense [39].

The results obtained in the current study indicated that, compared to the control group, the perpetrators of intimate partner violence had been more frequently exposed to emotional and physical abuse, neglect and the witnessing of family violence during childhood. In support of the above are the results of earlier studies [40,41], which showed that various forms of

abusive experiences in childhood were associated with different patterns of violent behaviour in adulthood. Roberts et al. [42] confirmed exposure to physical, emotional and sexual abuse as a significant risk factor of intimate partner violence for both genders. For men, a statistically significant predictor was witnessing family violence, while for women the predictor was exposure to physical neglect during childhood.

Social learning theories can explain the process of continued violent behaviour through the process of learning or modeling [43]. Intergenerational transmission of violence includes the general aggression model (GAM) and domain specific modeling (DSM). The general aggression model (GAM) refers to the acceptance of aggression in the family or developing attitudes about the acceptability of violence when they see that such behaviour is rewarded. Domain-specific modeling (DSM) refers to the commission of certain forms of aggression that the individual had been exposed to as a child. In theory, families with high levels of aggression produce better generalization and specific forms of modeling. Children from families who have been exposed to multiple or severe forms of violence are prone to greater modeling, which increases the likelihood of learning and performing violence [44,45].

Testing the differences in exposure to maltreatment during childhood between victims and perpetrators of IPV it was revealed that perpetrators of IPV had been more frequently exposed to emotional and physical abuse during childhood. However, Cohen's *d* indicated a small effect size in this instance. The results indicated that neglect and witnessing family violence in childhood had the same risk for committing, as well as exposure to violent behaviour in intimate partner relationship. However, exposure to emotional and physical abuse in childhood represented a higher risk of committing violence in partner relationships than it did for exposure to violent behaviour. These results support the findings of earlier studies that have found that exposure to maltreatment in childhood increased the risk for reciprocal partner violence [11,13].

The results of our study revealed that exposure to abuse by the father and mother during childhood significantly contributes to the risk of committing intimate partner violence, compared to the exposure to abuse by others during childhood. The results confirmed the findings of

studies that have shown that exposure to physical abuse by the mother and father in childhood has an effect on the perpetration of violence in partner relationships in adulthood [46]. Dutton [47] found that men who had memories of being emotionally discarded or abused by their fathers in childhood had an increased risk for dominance/isolative behaviour and being emotionally abusive toward their partners. According to social learning theory, learning through modeling occurs spontaneously without some special training or rewarding. The impact of model is higher if we perceive him as more similar to us. Furthermore, model of the same sex is more imitated. A larger number of the similar types of model behaviours are more effective than one type. Closer persons in daily contact are better model than more distant persons [48-50].

In contrast with the results of our study are the results of Sugarman and Hotaling [51], who found that witnessing family violence was unable to differentiate between men identified as psychological abusers from those classified as non-aggressive. The differences between these results might be explained by the different methodology approaches applied in the studies. While previous studies had been conducted in a manner that compared subjects regarding their level of aggression (which did not require violent behaviour), our study tested the differences between subjects that had committed intimate partner violence and the subjects in a control group.

The results of this study also highlighted that individuals exposed to intimate partner violence were significantly more likely to have experienced childhood maltreatment compared to subjects in the control group. Research conducted to date confirms witnessing family violence perpetrated by a mother against a father as a significant predictor for exposure to physical violence in partner relationships [52]. Furthermore, women exposed to family violence as a child by their father were more likely to become victims of physical and psychological violence in intimate relationship compared to non-victimized women [3,53].

Table 1. Differences in exposure to various forms of childhood abuse among the perpetrators of intimate partner violence, exposed to intimate partner violence and control groups

Exposure to various forms of childhood abuse	Mean			Perpetrators of intimate partner violence vs. Control group		Exposed to intimate partner violence vs. Control group		Perpetrators of intimate partner violence vs. Exposed to violence	
	Perpetrators of violence	Exposed to violence	Control group	t-test	Cohen's <i>d</i>	t-test	Cohen's <i>d</i>	t-test	Cohen's <i>d</i>
Emotional	10.227	7.411	3.500	6.480***	1.128	4.810***	.692	2.046*	.350
Physical	3.568	2.389	1.111	5.752***	1.001	4.267***	.614	2.022*	.345
Neglect	3.091	2.063	.778	5.350***	.931	4.674***	.673	1.738	.297
Witnessing	1.977	1.516	.556	6.053***	1.054	5.052***	.727	1.468	.251

p* < 0.05; *p* < 0.01; *** *p* < 0.001

Table 2. Differences in exposure to various forms of childhood abuse by the mother, father and other persons between the perpetrators of intimate partner violence and control group

	Exposure to various forms of childhood abuse	Mean Perpetrators of violence	Mean Control group	t-test	df	p	Cohen's <i>d</i>
Father	Emotional	5.568	1.800	6.378	137	.000	1.090
	Physical	2.114	.632	5.849	137	.000	.999
	Neglect	2.205	.632	4.806	137	.000	.821
	Witnessing	1.477	.411	5.916	137	.000	1.011
Mother	Emotional	3.106	1.021	5.467	140	.000	.924
	Physical	1.064	.337	4.974	140	.000	.841
	Neglect	.872	.200	4.207	140	.000	.711
	Witnessing	.213	.021	3.698	140	.000	.625
Others	Emotional	1.745	.840	2.334	145	.021	.388
	Physical	.404	.190	1.483	145	.140	.246
	Witnessing	.277	.170	1.076	145	.284	.179

Table 3. Differences in exposure to various forms of childhood abuse by the mother, father and other persons between the participants exposed to intimate partner violence and control group

	Exposure to various forms of childhood abuse	Mean exposed to violence	Mean control group	t-test	df	p	Cohen's d
Father	Emotional	2.947	1.190	4.544	193	.000	.654
	Physical	1.074	.380	3.703	193	.000	.533
	Neglect	1.211	.270	4.507	193	.000	.649
	Witnessing	1.095	.270	5.393	193	.000	.776
Mother	Emotional	2.440	1.230	3.413	198	.001	.485
	Physical	.910	.470	2.498	198	.013	.355
	Neglect	.860	.210	3.888	198	.000	.553
	Witnessing	.100	.040	1.308	198	.192	.186
Others	Emotional	2.152	.780	3.887	197	.000	.554
	Physical	.440	.050	3.892	198	.000	.553
	Witnessing	.370	.120	2.783	198	.006	.396

Table 4. Differences in exposure to various forms of childhood abuse by the mother, father and other persons between the perpetrators of intimate partner violence and participants exposed to intimate partner violence

	Exposure to various forms of childhood abuse	Mean perpetrators of violence	Mean exposed to violence	t-test	df	p	Cohen's d
Father	Emotional	5.568	2.947	3.907	137	.000	.668
	Physical	2.117	1.074	3.208	137	.007	.548
	Neglect	2.204	1.210	2.540	137	.012	.434
	Witnessing	1.477	1.095	1.594	137	.113	.272
Mother	Emotional	3.106	2.440	1.240	145	.217	.223
	Physical	1.064	.910	.618	145	.537	.103
	Neglect	.872	.860	.047	145	.967	.008
	Witnessing	.213	.100	1.605	145	.110	.267
Others	Emotional	1.745	2.151	-.746	144	.457	.124
	Physical	.404	.440	-.201	145	.847	.033
	Witnessing	.277	.370	-.699	145	.485	.116

The above-mentioned studies support the theory that exposure to domestic violence has a determinable influence on an individual's sensibilities for being an victim in partner relationships [52,53]. The experience of childhood maltreatment may have an impact on the development of non-adaptable coping strategies, which in turn may expose individuals to an increased risk for exposure to violent behaviour due to the compromised ability for coping with stressful situations [3,54]. In addition, exposure to childhood abuse can result in the development of psychopathological symptoms which can contribute to difficulties for recognizing dangerous situations. Consequently, the risk for entering into dysfunctional partnerships may be increased [54,55].

The current study revealed significant differences between the perpetrators and victims of IPV in terms of childhood exposure to emotional abuse, physical abuse and neglect by the father. Perpetrators were significantly more exposed to these forms of abuse in childhood, compared with participants categorized as victims. Regarding the exposure to maltreatment in childhood by the mother and others persons in childhood, no significant differences were obtained in terms of exposure between the perpetrators and victims of IPV. It can be concluded that maltreatment in childhood by the father represents a significantly more important risk factor for committing violence than having been exposed to violent behaviour in intimate partner relationship.

In this study, all perpetrators of violence were men, while the victims were all women. In the case of men exposed to childhood abuse, compared to women, fathers were the most powerful models for the teaching and modeling aggressive behaviour. This may be the result of males' identification with the father during the process of growing up, but might also be the consequence of stereotypical gender roles entrenched in society, which is predominantly patriarchal.

5. LIMITATIONS OF THE RESEARCH

The results of the study highlight the relationship between childhood abuse and intimate partner violence during adulthood. However, the transversal research design applied in this study did not allow for understanding the mechanisms of this relationship. In addition, previously conducted research indicates that retrospective studies of childhood abuse may have been affected by measurement errors. It is possible that the time that has passed between childhood experiences and adulthood may have affected the memories of subjects, thereby causing selective recall. Furthermore, respondents may have felt embarrassed about the subject, may have had the desire to forget the experience or abuse, or the abuse may have occurred at an early age, limiting the possibility of recall [56]. However, some studies have indicated retrospective research conducted using self-assessment measures to be reliable in terms of adult women recalling their experiences of childhood abuse [57]. And finally, the fact that all the perpetrators were men, and all the victims were women is one of the limitations of the research and does not make the study generalizable.

6. CONCLUSION

Using exposure to maltreatment in childhood to operationalize the construct of social learning and the transgenerational transmission of violence, the long-term and significant impact of exposure to violence during childhood on intimate partner violence was confirmed. Although we were unable to make conclusions about the precise mechanisms of the relationship between exposure to maltreatment in childhood and IPV, the results still provide support to the assumptions of social learning theory and the transgenerational transmission of violence, which explains that exposure to domestic violence in

childhood can lead to the learning of pro- abuse norms and behaviour patterns that can be replicated in adult relationships [23,30].

These results have important implications for public health interventions and programs. First, child abuse prevention is paramount. Second, the long-term consequences of childhood maltreatment should be considered in counseling efforts. Third, intervention to educate partners in intimate relationship on healthy relationships may be an important opportunity to stop cycle of violence.

COMPETING INTERESTS

Authors have declared that no competing interests exist. The study was not sponsored by any external organization.

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