This is the accepted version of the following article:

Rivas-Rivero, E., & Bonilla-Algovia, E. (2022). Adverse Childhood Events and Substance Misuse in Men Who Perpetrated Intimate Partner Violence. *International Journal of Offender Therapy and Comparative Criminology, 66*(8), 876-895.

which has been published in final form at:

https://doi.org/10.1177/0306624X211013519

This article may be used for non-commercial purposes in accordance with Sage Terms and Conditions for Use of Self-Archived Versions.

Copyright © 2021, Sage.

Adverse childhood events and substance misuse in Men who perpetrated intimate

partner violence

Abstract:

Adverse childhood events related to violence suffered have developmental consequences such

as the reproduction of such violence in intimate relationships and substance misuse in the later

life trajectory. The objective of this study was to analyze the relationship between suffering

adverse childhood events and excessive consumption of alcohol and drugs in 120 men, with a

mean age of 40.51 years (SD = 11.06), who have abused women in a relationship. The results

indicate that those who suffered abuse in childhood and other adverse childhood events in the

family of origin consumed alcohol and drugs in excess. Furthermore, the regression models

show that alcohol consumption is related to previous substance use by parents, while drug use

is related to leaving home due to family conflicts. Also, the consumption of alcohol and other

substances is likewise associated with consumption by parents and conflicts within the family.

The size of the effect of the relationship increases when different forms of poly-victimization

coexist. Conflict treatment is necessary in any setting, especially when it takes place in the

family environment and at an early age, to avoid the transmission of maladaptive behaviors

associated with substance misuse and violence.

Keywords:

Alcohol; Drugs; Violence against women; Adverse childhoods events; Aggressors.

Violence against women in intimate relationships has been defined as a public health issue of epidemic proportions (Lila et al., 2016; McCarthy et al., 2018). It is the most common form of violence women experience, and the percentage of women who suffer physical and/or sexual violence at the hands of their partner is around 30% (Devries et al., 2013). These estimates could be as high as 70% in some regions of Africa and Asia (WHO, 2014). In Spain, according to the Ministry of Health, Social Services and Equality (2015), 12.5% of women 16 years and older have suffered physical and/or sexual violence perpetrated by their partner or ex-partner at some point in their life. The differences in these rates may be due to a greater tolerance for and justification of violence against women in accordance with socially-established ideologies about masculinity that attribute to men qualities such as toughness, control, and power, which could manifest through the use of violence (Jewkes et al., 2015).

Related to violence against women, violence against minors is also a public health problem: worldwide, it has been found that 36.3% of children have suffered psychological violence, 23% physical violence, and 18% of girls and 7.6% of boys are victims of some form of sexual abuse in different contexts (Stoltenborgh et al., 2015). Thus, both forms of exercising violence against members of the family unit could be based on the heteropatriarchal concept of the family according to which the head of the family uses violence to demand obedience and submission in the face of any threat to his masculine hegemony (Ruggles, 2015). In this context, some authors indicate that around 33% of people who were victims of abuse in childhood continue to perpetuate abuse, a rate six times higher than the general population that has not suffered abuse at early ages (Choi et al., 2019).

According to Davis et al. (2015), witnessing violence in the family of origin is a relevant factor for predicting violent behavior in adults. Several studies support the inter-generational nature of gender-based violence and have established that close to 30% of minors who suffer or witness violence will present these behaviors in adulthood (Guille, 2004), since aggression

tends to be interpreted incorrectly and, faced with interpersonal conflict, they turn to violent solutions (Ison-Zintilini, & Morelato-Giménez, 2008). The term intergenerationality has been used to allude to the possibility that minors who have been exposed to gender-based violence will repeat this violence in their adult life (Lizana, 2012). Furthermore, there is evidence that there is a relationship between being a victim or witness of family violence during childhood or adolescence and an increased risk of intimate partner violence against women in adulthood (Gover et al., 2008). Some authors state that men with a prior history of violence in their family of origin are likely to be violent again in the future (Monahan, 1992; VanderEnde et al., 2016), and that low quality of family life could be a good predictor for the appearance of such violence (Lehnig et al., 2019). However, the diversity of results in the study of the intergenerational transmission of violence will depend on the type of design, the sample, the measures and instruments used, as well as the duration of follow-up, so that limitations are pointed out among which there is a greater presence of studies on victimization in women (Shakoor et al., 2020). Still, it should be noted that childhood experiences of abuse rarely consist of a single type of victimization, and that the risk of subsequent perpetration appears to be high and could have serious consequences for later development (Davis et al., 2015). Dynamics within the family, especially between parents and children, are very influential, and events such as substance abuse and violence against women in intimate relationships between parents can have a strong impact on their lives (Thornberry et al., 2003).

Numerous investigations have shown that adverse events suffered in childhood and adolescence (such as physical abuse, intimate partner violence and family conflicts) have serious consequences for physical and psychological health and could lead to problematic behaviors associated with substance misuse in adulthood (Afifi et al., 2009; Rivas et al., 2020; Rothman et al., 2008). They are defined as the set of experiences that result in a significant change in the lives of those who suffer them, exerting a large influence on the subsequent life

trajectory (Compas et al., 1993; Hughes et al., 2017; Grant et al., 2003), so that when they occur at an early age they generate serious consequences, threatening psychological well-being and leading to problems such as substance misuse (Cuijpers et al., 2011). Problems with alcohol and other substances have been conceptualized as developmental phenomena, so that family environment factors play a role in their subsequent use (Wardell et al., 2017). In addition, it has been found that adverse childhood events influence the early onset of alcohol consumption, its excessive consumption, as well as the use of other substances (Lee & Chen, 2018; Shin et al., 2009). Likewise, substance use by parents increases the probability that there will be problems with such use in the next generation by a factor of four (Pulido-Rull et al., 2012). It should be asked what kinds of adverse experiences in childhood have the greatest effect on the subsequent development of addictive and maladaptive behaviors, bearing in mind the enormous repercussions they have on the health of those who experience them (Crane et al., 2017; Wardell et al., 2017).

On the other hand, some meta-analyses show a consistent relationship between alcohol abuse and violence against women, given that excessive consumption of alcohol increases the probability of episodes of violence against women by 4.6 times compared to low consumption or abstinence(Foran, & O'leary, 2008; Gil-González et al., 2006). Substance abuse seems to reduce inhibitions around violence, decreasing fear of risky situations and the feelings of guilt that would arise without that consumption (Castillo-Fernández et al., 2016). In a study by Grann and Wedin (2002) carried out with 88 men convicted of crimes of intimate partner violence, 51% of the assailants had substance abuse problems. Torres et al. (2013) recognize that alcohol and drug consumption is higher among men with a violent profile, although these authors argue that substance use is not linked to violence against women, but that if an abuser consumes these substances it could promote assaults and increase their severity. Furthermore, the close relationship between violence in intimate relationships and excessive alcohol consumption is evident

(Leonard et al., 2017), for example, in the fact that around 50% of men convicted of violence against women referred to intervention programs as abusers present some type of problem associated with alcohol consumption (Arteaga et al., 2015). Some studies report that one of the best predictors of abandonment of intervention programs with aggressors, and therefore of violent recidivism, is substance use (Lila et al., 2016). However, it seems to have been shown that substance use and violence constitute two serious social problems, complex and difficult to address from any scientific perspective (Castillo-Fernández et al., 2016).

In order to stop violence against women in Spain, legislators passed Organic Law 1/2004, of December 28, on Comprehensive Protection Measures against Gender-Based Violence. Article 1 of this law outlines the actions to be taken to fight violence against women that is the result of the power relationships with men who have been spouses or intimate partners, as well as how to prevent, sanction, and eliminate this violence by providing assistance to women and their minor children who are victims of said violence (Ley Orgánica 1/2004, de 28 de diciembre, de Medidas de Protección Integral contra la Violencia de Género, p.10). Additionally, with the entry into force of this Law, there was a significant increase in the number of intervention programs for assailants, as those convicted of a gender-based violence crime had to undergo treatment in cases in which their prison sentence was stayed or substituted. Thus, courts referred defendants with no criminal record and who received prison sentences of less than two years to intervention programs (Fernández-Montalvo et al., 2012).

Regarding intervention, some research has shown that learning healthy alternatives in conflict resolution and promoting changes in perceptions around the normalization of violence reduce substance use, even though it is not the reduction of consumption of the substance targeted in treatment, in addition to reducing recidivism of violence against domestic partners (Lila et al., 2016). This aspect must be taken into account in the existing debate on the effectiveness of these programs if, in addition, treatment for substance and alcohol use is

included (Crane et al., 2015; Wilson et al., 2014). It should be added that substance use is not an explanatory factor, it is insufficient in the study to be able to explain violent behavior in aggressors, so there would be other variables intervening in such maladaptive behaviors (DeLisi et al., 2015). The objective of this research is to analyze the relationship between adverse childhood events related to conflicts and violence in the family of origin, and the consumption of substances in men who have inflicted violence against their domestic partner. The study also investigates what events have a larger influence on the development of behaviors related to consumption of such substances. Taking into account the previous empirical evidence, the following hypotheses were raised: (1) ACEs are related to substance misuse, (2) a higher number of ACEs is associated with higher levels of substance use and (3) ACEs with a more aggravating nature, mainly associated with violence suffered in childhood, are related to the consumption of such substances.

Method

Participants

The sample is made up of 120 men who have abused their female partner or ex-partner and are in a situation of suspended sentence (Table 1). The selection of the participants was carried out by means of an intentional and non-probabilistic sampling in the Navalcarnero Penitentiary Center (Madrid). The sample inclusion criteria were the following: men convicted of having inflicted some form of mistreatment against their domestic partner, participating in a social reintegration program in the penitentiary, being at the beginning of the treatment program, and having sufficient knowledge of the language to be able to complete the questionnaire and understand the items that are formulated in the instrument. The sample exclusion criteria established were: not including men who are receiving a sentence for reasons other than partner abuse, who are not at the beginning of the intervention program, not having sufficient command of Spanish, as well as those who, in the consideration of the professionals, manifest a negative

or disruptive attitude. A total of 13 men were excluded. First, the participation of 12 men who were in advanced stages of the reintegration program was ruled out and, later, the participation of one man was ruled out because, although he met the inclusion criteria, he manifested negative behavior towards the professionals.

Table 1 shows the sociodemographic characteristics of the sample. The mean age of the participants was 40.51 years (SD = 11.06). 78.5% had children and, together, they had an average of 1.60 children (SD = 1.23). 69.4% had Spanish nationality and 30.6% had another nationality. Regarding the civil situation, about one in four participants was divorced (24%) and the majority were single (40.5%). Regarding the level of education, 24% had a higher education and 38% had a secondary education level; a lower percentage had a basic education level (28.1%) or had not completed an education (7.4%). More than 60% worked full-time with a contract and only 16% were unemployed.

Table 1

As shown in Table 1, just over half of both the foreign and Spanish aggressors in the sample of had had problems with excessive alcohol consumption, although the percentage was higher for drug use among participants of Spanish nationality. Regarding marital status, more than 60% of those who were single had had problems with alcohol consumption, and 50% of this group had used drugs in excess. Likewise, the highest percentages for excessive consumption of both alcohol and drugs are found among those with a lower educational level. Finally, higher percentages of men with substance abuse problems are observed among participants who had more job instability.

Measurement instruments

Sociodemographic characteristics. The research team designed a list of questions to find out the age, the number of sons and daughters, the level of education, and the employment and income status of the men in the sample.

List of Stressful Life Events. An abbreviated version of the List of Stressful Life Events for socially excluded groups (L-SLE) (Vázquez & Panadero, 2016; Vázquez, Panadero & Martín, 2015), created from the revision of the instrument by Brugha and Cragg (1990), was used, and from previous studies in groups in social exclusion and in contexts of poverty (Panadero et al., 2017; Rivas-Rivero et al., 2020; Roca et al., 2019; Vázquez et al., 2015). It consists of 26 items (10 suffered before the age of 18 and 16 suffered after that age). L-SLE consists of different events that may have occurred throughout the life cycle (e.g., did you suffer physical abuse in childhood?). The different items have a dichotomous response option depending on the occurrence of such events: yes or no. For the present study, although the L-SLE includes events that occur at all ages, eight events that may occur before age 18 were selected and events that may occur beyond 18 years were discarded. Specifically, the items related to physical abuse, psychological abuse, sexual abuse, school abuse, and exposure to violence suffered by the interviewee's mother were selected, as well as the background regarding substance use by the parents. The instrument, as can be seen in Table 2, also considers the age at which stressful life events occurred for the first time, which allows a closer consideration of the events. In the present work, the omega coefficient ($\omega = .770$) indicates an acceptable level of internal consistency.

Substance abuse assessment. Alcohol and drug use was analyzed using an instrument made up of self-report questions. These questions were taken from the study by Rivas-Rivero et al. (2020), in which the risk factors associated with substance use in female victims of abuse were analyzed. The instrument is divided into two measurement sections. The first section measures the occurrence of problems related to substance use (alcohol and drugs) and is made up of two questions: 1) Have you had problems with alcohol use at any time in your life? and 2) have you had a problem with drug use at any time in your life? The questions are dichotomous and have two answer options (Yes and No), in addition to the age of initiation of substance use. The

omega coefficient obtained for substance use was $\omega = .733$. The descriptive statistics for both sections of the instrument are found in Table 2.

Procedure

The study was carried out in collaboration with the association CUPIF (With One Foot Outside), an organization that intervenes in Social Insertion Centers attended by people who have inflicted violence against women and who have been in prison in penitentiary centers of the Community in Madrid. CUPIF was the association in charge of implementing the treatment programs. First, the director of the association was contacted and informed of the objective of the research. She referred us to the Spanish government's Ministry of the Interior to obtain the Penitentiary Institution permits so as to be able to access samples in penitentiary centers. The study was approved by the Universidad de Alcalá's Ethics Committee (CEI/HU/2019/21). Once both permits were obtained, the sample was accessed, and the instrument was applied with structured questions to those who decided to participate in the study voluntarily. The participants were assured of the anonymity of the data from the questionnaire. The instrument was distributed by the professionals who work at the Social Integration Center and not by people outside of that organization so as to not condition the responses.

Data Analysis

The database was developed and processed with SPSS (version 25.0 for Windows). Chisquared and Student's t were used with the probability of making a type I error of p < .05. Odds ratios (OR) analyses were applied with confidence intervals of 95% (CI). The effect size was measured for the continuous variables with *Cohen's d*; the relationship would be small if $d \le$.20, moderate if d were between .20 and .50 and large if $d \ge .80$. Lastly, a binary logistic regression analysis was carried out in order to know which variables were related to the excessive consumption of alcohol and drugs. To determine the model's goodness of fit, the Hosmer–Lemeshow test should show no significance, while the chi-squared test should have a value of p < .05 (Hosmer & Lemeshow, 2004). For the reliability analysis, the statistics software R Studio (version 1.0.136) was used. The omega coefficient was measured, which confers greater precision for reliability and is adequate in items with a dichotomous response (Ventura-León, 2018).

Results

Table 2 shows the adverse childhood events experienced by the interviewees before and after age 18. As can be seen, close to one in four participants experienced physical and psychological abuse in their childhood at very early ages. It should also be noted that 10.7% experienced bullying in their childhood. One in five was exposed to abuse against their mother by their father or other partner. Additionally, in 21.5% of cases the parents had substance abuse issues. A bit more than 17% had to leave their home as a result of family conflicts at an average age of 15 years old. Regarding substance use, 40% had had problems with drug use and 55% with alcohol abuse at some point in their life.

Moreover, the men in the sample experienced a mean of 1.48 adverse childhood events (SD=1.882), of which 45.4% (n=55) did not experience any adverse childhood events, 17.6% experienced one (n=21), 12.6% experienced two of these events (n=15), 8.4% experienced three of these events (n=10), 7.6% experienced four (n=9), and 8.4% experienced five or more adverse childhood events (n=10).

Table 2

Table 3 reports the differences among the participants who had problems with alcohol abuse according to the adverse childhood events experienced before the age of 18. There were larger percentages in the group of participants who consumed alcohol in excess with regard to suffering other negative events such as witnessing substance abuse by parents or experiencing physical or psychological abuse in childhood. The odds ratios analyses indicate that there is a high risk that those who suffered adverse experiences at early ages (psychological abuse,

bullying, family conflict) will go on to have subsequent problems with alcohol consumption, although substance abuse by parents and, therefore, its possible intergenerational transmission, presented the highest risk factor for the men in the sample.

Table 3

There were statistically significant differences between participants who consumed alcohol in excess and those who did not in terms of the number of adverse childhood events. Participants who had problems with alcohol abuse experienced a greater number of adverse childhood events (M = 2.16; SD = 2.027) than those who did not (M = .65; SD = 1.223) (t = -5.160; p = .000) (*Cohen's d* = .899).

In order to verify which variables are related to excessive alcohol consumption, a binary logistic regression analysis was performed (Table 4). Adverse childhood events were included as independent variables in the analysis. The resulting model to predict alcohol consumption allows a correct estimation of 56.3% of the cases ($\chi^2 = 37.643$; p = .000). On the other hand, the Hosmer and Lemeshow test provides a significance of p = .127, which shows an acceptable goodness of fit of the model. Nagelkerke's R² statistic is .364. The results show that alcohol consumption is associated with the consumption of substances in the parents and with the separation of the parents.

Table 4

Moreover, the results also show differences between those who had problems with drug abuse and those who did not with regard to the adverse childhood events experienced before age 18 (Table 5). To start, one out of three participants who abused drugs had parents with substance abuse problems and were victims of physical and psychological abuse. Additionally, over 30% of those who had abused drugs had to leave home due to conflicts in their family of origin, compared to 8% among those who did not have drug abuse problems. Odds Ratio analysis

reflects a high risk among drug and other adverse childhood events related to violence, including physical abuse and family conflicts that forced them to leave their homes.

Table 5

There were also statistically significant differences between participants who had abused drugs (M = 2.02; SD = 1.961) and those who had not (M = 1.14; SD = 1.754) with regard to the number of adverse childhood events experienced (t = -2.559; p = .012) (*Cohen's d* = .480), with a higher average among those who had abused drugs and a moderate association between the variables.

To find out which variables are related to excessive drug use, a binary logistic regression analysis was performed (Table 6). The resulting model to predict drug use allows an estimate of 73.1% of cases ($\chi^2 = 27.348$; p = .001). On the other hand, the Hosmer and Lemeshow test provides a significance of p = .777, which shows the acceptance of the model. Nagelkerke's R^2 statistic estimates a fit value of .278. It should be noted that, in the binary logistic regression model, the variables related to drug use are substance use in the parents, bullying and the conflicts experienced that led them to leave the family environment.

Table 6

The combined analysis of both substances revealed that 33.3% of the participants had problems with the simultaneous consumption of alcohol and drugs. Table 7 shows the different adverse childhood events suffered by the participants and establishes samples for those with an excessive consumption of both substances and those who did not consume them (38.3%). The results indicate that, compared with non-users, people who have consumed alcohol and drugs simultaneously present significantly higher percentages for some adverse childhood events—namely, one of their parents had problems with substance use, suffered psychological abuse, suffered physical abuse, or had to leave home due to family conflicts—as well as the separation of the parents. Regarding the sum of adverse childhood events suffered, statistically significant

differences were found between those who consumed alcohol and other drugs (M = 2.15; SD = 2.032) and those who did not (M = .51; DT = 1.179; t = 4.474; p = .000; Cohen's d = 1.005)

Table 7

Table 8 shows the binary logistic regression analysis carried out to determine which variables were related to the simultaneous abuse of both substances. The resulting model predicts an overall percentage of 52.9% of the cases, with Chi-Square values of 42.356 (p = .000) in the omnibus tests of the model coefficients. The Hosmer and Lemeshow test supports the acceptance of the model (p = .563), and the Nagelkerke R^2 estimates a fit value of .524. The results of the model indicate that the simultaneous abuse of alcohol and drugs is mainly related to having suffered psychological abuse. According to the results of the binary logistic regression, alcohol problems are mainly related to a parental history of consumption and psychological abuse.

Table 8

Discussion

The aim of the study was to analyze the relationship between adverse events childhood related violence and conflicts in the family of origin and substance use among men who have committed violence against their domestic partner, as well as knowing the adverse childhood events that played a more relevant role in the development of behaviors related to the excessive consumption of alcohol and drugs.

Among the most relevant results of the study is the high rate regarding the consumption of substances among the participants, since 55.4% declared having had problems with excessive alcohol consumption and 38.3% affirmed having used drugs in excess at some point in time. his life. In addition, one in three participants claimed to have had problems with the use of alcohol and other substances. The percentages show a problem not only for the health of those who consumed substances in excess, but also the risk that this consumption implies for the

prevalence and severity of domestic violence against women. These percentages pose a problem not just for the health of the participants who abused substances, but also in terms of the risk this abuse presents for the prevalence and severity of intimate partner violence (Arteaga et al., 2015; Castillo-Fernández et al., 2016; Fernández-Montalvo & Echeburúa, 1997; Foran & O'leary, 2008; Gil-González et al., 2006; Grann & Wedin, 2002; Leonard et al., 2017; Stuart et al., 2008). Furthermore, alcohol consumption among the assailants in the sample is above the rate of consumption for this substance in other studies with men convicted of violence against women (Arteaga et al., 2015; Grann & Wedin, 2002; Torres et al., 2013), and much higher than the rate found in men in the general Spanish population, which is 1.2% (Gual et al., 2016).

In terms of the adverse childhood events experienced by the men in the sample, 21.5% reported a history of substance abuse in their family of origin. Additionally, close to one in four participants was the victim of psychological and physical abuse before the age of 18; this prevalence is in line with estimates of child abuse reported internationally (Stoltenborgh et al., 2015). This type of abuse could affect normal functioning, resulting in a variety of issues (Widom, 2017), in addition to a greater tolerance for violence (Fernández-Montalvo & Echeburúa, 1997). There were additional negative circumstances that occurred at early ages among participants, such as exposure to violence against their mother in 19% of the sample. These especially adverse experiences evidence the possible trauma that took place in the family of origin, which seems to be an indicator of the low quality of the participants' family life in childhood and adolescence (Lehning et al., 2019). Moreover, the fact that the assailants in the sample have perpetrated violence against their partner seems to be related to these situations of violence in the family context, given that, as some authors argue, abuse in childhood increases the risk of transferring said abuse to the next generation (Bonilla-Algovia & Rivas-Rivero, 2020; Choi et al., 2019; Davis et al., 2015; Guille, 2004; Hotaling & Sugarman, 1986), as these

types of circumstances normalize violence as a way of resolving conflicts (Ison-Zintilini & Morelato-Giménez, 2018; Lizana, 2012; VanderEnde et al., 2016).

On the other hand, there seems to be a relationship between alcohol abuse and experiencing adverse childhood events, mainly linked to parents' substance abuse, psychological abuse, and the participants having to leave home due to family conflicts. These factors increase the risk of alcohol abuse more than other traumatic experiences, such as witnessing violence against their mother or other violent situations outside of family life, such as bullying. Additionally, a greater number of adverse childhood events is related to alcohol abuse; this relationship had an especially high effect among the men in the sample (Cohen's d = .899). As in other studies, the family environment seems to play an important role in developing these types of addictive behaviors (Afifi et al., 2009; Rivas et al., 2020; Rothman et al., 2008; Wardell et al., 2017). However, the highest risk indexes from the univariate analysis were related to the parents' substance abuse and family conflicts that forced some of the participants to leave home. According to the results of the binary logistic regression, problems with alcohol are mainly related to the history of consumption in parents and the separation or divorce of parents, events that together appear to have been more significant. This is in contrast to other studies that have found that child abuse is linked to consumer behaviors (Rivas-Rivero et al., 2020).

With regard to drug abuse, there seem to have been differences according to parents' substance abuse, psychological and physical abuse before age 18, and having to leave home due to family conflicts; this last factor represented the highest risk. Moreover, a higher number of negative events in childhood seems to be related to drug abuse, although the effect size was lower than for alcohol abuse (Cohen's d = .484). However, according to the binary logistic regression analysis, drug use is mainly related to parental use, bullying, and having to leave home due to family conflicts. For the consumption of alcohol and drugs simultaneously, differences were found based on previous consumption by parents, psychological abuse and

that they had to leave their home due to conflicts in the family of origin. The effect size found for the simultaneous use of alcohol and other substances as a function of the sum of adverse childhood events was higher than for the single use of drugs (Cohen's d = .546). The multivariate analysis shows that the use of multiple substances was influenced by previous use by parents and having to leave their home due to family conflicts.

Therefore, the present study provides new information regarding the influence of negative experiences suffered at an early age. Most studies seem to indicate that it is adverse childhood events related to abuse and violence in the family of origin that present the greatest risk for various problems to emerge in later development (Cuijpers et al., 2011; Crane et al., 2017; Rivas-Rivero et al., 2020; Waldell et al., 2017). The association between the violence suffered and the use of substances has been widely reported, presenting both problems in a parallel way and as a vicious circle, since this use could be a coping mechanism with which to face the trauma and mitigate the memories linked to the past (Caldentey et al., 2017; Simonelli et al., 2014). However, although victimization by violence plays a less relevant mediating role in drug use, it should be noted that all participants abused their partners or ex-partners, so family experiences of victimization could be related to abusive behavior (Yoder et al., 2017).

All in all, the results show the relationship between adverse childhood events and substance use (Afifi et al., 2009; Rivas et al., 2020; Rothman et al., 2008; Wardell et al., 2017) and provide new information regarding this relationship (Lee & Chen, 2018) in men with a previous history of victimization in childhood who have abused their partner, which could be adverse childhood events and the consumption of substantial precipitating factors and high risk to exercise violence against women (Fernández-Montalvo et al., 2011). It is important to note that the fact that some studies have found that, without implementing a specific intervention for substance use, such use is reduced, highlighting the potential of programs with offenders, something that should be taken into account in the analysis of the effectiveness of treatments

that deal with both substance abuse and violent behavior (Lila et al., 2016). Furthermore, some studies show that intervention for the reduction of substance use reduces violence in different contexts (Llopis et al., 2014). In this sense, it is important for professionals to include motivational interventions that allow positive results in the process of recovery from substance use (Shaul et al., 2019), since they would reduce the risk of re-offending both in drug use and violence (Lila et al., 2016).

This study has limitations that should be pointed out. To begin with, the participants were selected according to the sample inclusion criteria, so the sample is not representative of male aggressors and the results are not generalizable to this group. Likewise, they would have to specify the type of drugs in particular and the length of time they remained in that consumption situation or whether they were still continuing with such behavior at the time of information collection. Furthermore, many of the circumstances addressed occurred in the past and there could be a bias in the responses inherent in retrospective studies, so that the interpretation of adverse childhood events and consumption behaviors could have varied over time (Grant et al., 2003). Finally, it should be noted that some questions in the questionnaire had missing data due to the focus on adverse childhood events, so the relationship between other adverse childhood events that took place throughout their life trajectory is not addressed in the present study.

In conclusion, it is essential to develop strategies to resolve conflicts within the family and in the context of the couple, as well as preventing substance misuse. As reported in the results, the consumption of substances by the parents and the conflicts within the family that broke the family bond—precipitating emancipation—seem to have played a relevant role in subsequent use, more so than the violence that they suffered in childhood. These findings indicate that, during interventions—and especially from a preventive approach—both the consumption by parents and conflict resolution must be addressed, because both seem to play an important role

in the reproduction of these behaviors. It is therefore necessary to propose an appropriate transformation of cultural patterns and beliefs in which violence and substance use are normalized, given their high prevalence. It is also important to strengthen interventions, taking into account the success of different programs in reducing these problems that increase the risk and aggravating nature of violence against women.

References

- Afifi T.O., Boman J., Fleisher W., & Sareen J. (2009). The relationship between child abuse, parental divorce, and lifetime mental disorders and suicidality in a nationally representative adult sample. *Child Abuse & Neglect*, 33(3),139–147. https://dx.doi.org/10.1016/j.chiabu.2008.12.009
- Arteaga, A., López-Goñi, J.J., & Fernández-Montalvo, J. (2015). Differential profiles of drugaddicted patients according to gender and the perpetration of intimate partner violence.

 Drug and Alcohol Dependence, 155, 183-189. https://dx.doi.org/10.1016/j.drugalcdep.2015.07.018
- Bonilla-Algovia, E. & Rivas-Rivero, E. (2020). Relación entre el maltrato infantil y la violencia en el noviazgo en jóvenes colombianos. *Psicología desde el Caribe, 37*(2), 68-87. https://dx.doi.org/10.14482/psdc.37.2.307.14
- Brugha, T.S. & Cragg, D. (1990). The List of Threatening Experiences: The reliability and validity of a brief life events questionnaire. *Acta Psychiatrica Scandinavica*, 82, 77-81.
- Caldentey, C., Tirado-Muñoz, J., Ferrer, T., Fonseca, F., Rossi, P., Mestre-Pintó, J.I., & Torrens, M. (2017). Intimate partner violence among female drug users admitted to the general hospital screening and prevalence. *Adicciones*, 29(3), 172-179. https://dx.doi.org/10.20882/adicciones.738
- Castillo-Fernández, E., Gómez-Sánchez, E., Mata-Martín, J.L., Ramírez-Uclés, I., & López-Torrecillas, F. (2016). Perfil diferencial de trastornos de personalidad en el consumo de

- drogas y maltrato. *Acción Psicológica*, *13*(1), 31-40. https://dx.doi.org/10.5944/ap.13.1.17394
- Choi, K., Houts, R., Arseneault, L., Pariante, C., Sikkema, K., & Moffitt, T. (2019). Maternal depression in the intergenerational transmission of childhood maltreatment and psychological sequelae: testing postpartum affects in a longitudinal birth cohort.

 *Development** and *Psychopatology*, 31(1), 143-156.

 https://dx.doi.org/10.1017/S0954579418000032
- Compas, B.E., Orosan, P.G., & Grantz, K.E. (1993). Adolescent stress and coping: implications for psychopathology during adolescence. *Journal of Adolescence*, 16 (3), 331-349. https://dx.doi.org/10.1006/jado.1993.1028
- Crane, C.A. & Easton, C.J. (2017). Psysical health conditions and intimate partner violence perpetration among offenders with alcohol use diagnoses. *Journal of Interpersonal Violence*, 32(11), 1678-1691. https://dx.doi.org/10.1177/0886260515590124
- Crane, C.A., Eckhardt, C.I., & Schlauch, R.C. (2015). Motivational enhancement mitigates the effects of problematic alcohol use on treatment compliance among partner violent offenders: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 83, 689-695. https://dx.doi.org/10.1037/a0039345
- Cuijpers, P. Smith, F., Unger, F., Stikkelbroek, Y., Ten Have, M. & Graaf, R. (2011). The disease burden of childhood adversities in adults: a population-based study. *Child Abuse and Neglect*, *35*(11), 937-945. https://dx.doi.org/10.1016/j.chiabu.2011.06.005
- Davis, K.C., Masters, N.T., Casey, E., Kajumulo, K., Norris, J., & George, W.H. (2015). How childhood maltreatment profiles of male victims predict adult perpetration and psychosocial functioning. *Journal Interpersonal Violence*, 33(6), 915-937. https://dx.doi.org/10.1177/0886260515613345

- DeLisi, M., Vaughn, M.G., Salas-Wright, C., & Jennings, W.G. (2015). Drugged and dangerous: Prevalence and variants of substance use comorbidity among seriously violent offenders in the united states. *Journal of Drug Issues*, 45(3), 232-248. https://dx.doi.org/10.1177/0022042615579237
- Devries, K.M., Mak, J.Y., García-Moreno, C., Petzold, M., Child, J.C., Falder, G., ... Watts, C.H. (2013). The global prevalence of intimate partner violence against women. *Science*, 340, 1527-1528. https://dx.doi.org/10.1126/science.1240937
- Fernández-Montalvo, J., Echauri, J., Martínez, M., & Azcárate, J. (2012). Batterer men in prison and in court-referred treatment programmes: what is the difference? *The Spanish Journal of Psychology*, 15, 315-322.
- Fernández-Montalvo, J. & Echeburúa, E. (1997). Variables psicopatológicas y distorsiones cognitivas de los maltratadores en el hogar: un análisis descriptivo. *Análisis y Modificación de Conducta*, 23, 151-180.
- Fernández-Montalvo, J., López-Goñi, J.J., & Arteaga, A. (2011). Tratamiento de agresores contra la pareja en programas de atención a drogodependientes: un reto de futuro. *Adicciones*, 23(1), 5-9.
- Foran, H.M. & O'Leary, K.D. (2008). Alcohol and intimate partner violence: A metaanalytic review. *Clinical Psychology Review*, 28, 1222-1234. https://dx.doi.org/10.1016/j
 https://dx.doi.org/10.1016/j
 https://dx.doi.org/10.1016/j
- Gil-González, D., Vives-Cases, C., ÁlvarezDardet, C., & Latour-Pérez, J. (2006). Alcohol and intimate partner violence: Do we have enough information to act? *European Journal of Public Health*, 16, 278-284. https://dx.doi.org/10.1093/eurpub/ckl016
- Gover, A.R., Kaukinen, C., & Fox, K.A. (2008). The relationship between violence in the family of origin and dating violence among college student. *Journal of Interpersonal Violence*, 4. https://dx.doi.org/10.1177/0886260508314330

- Grann, M. & Wedin, I. (2002). Risk factors for recidivism among spousal assault and spousal homicide. *Psychology, Crime and Law, 8*, 5-23.
- Grant, K.E., Compas, B.E., Stuhlmacher, A.F., Thurm, A.E., McMahon, S.D., & Halpert, J.A. (2003). Stressors and child and adolescent psy-chopathology: Moving from markers to mechanism of risk. *Psychological Bulletin*, 129(3), 447-466. https://dx.doi.org/10.1037/0033-2909.129.3.447
- Gual, A., Arbesú, J.A., Zarco, J., López-Pelayo, H., Miquel, L., & Bobes, J. (2016). El alcoholimo y su abordaje desde una perspectiva ciudadana. *Adicciones*, 28(3), 163-173. https://dx.doi.org/10.20882/adicciones.742
- Guille, L. (2004). Men who batter and their children: an integrated review. *Agression and Violent Behaivior*, 9, 129-163. https://dx.doi.org/10.1016/S1359-1789(02)00119-2
- Hosmer, D.W. & Lemeshow, S. (2004). Applied logistic regression. Textbook and solutions manual (2nd ed.). New York, USA: John Wiley and Sons.
- Hughes, K., Bellis, M.A., Hardcastle, K.A., Sethi, D., Butchart, A., Mikton, C. ... Dunne, M.P. (2017). The effect of multiple adverse childhood expériences on health: a systematic review and meta-analysis. *The Lancet*, 2(8), 356-366. https://dx.doi.org/10.1016/S2468-2667(17)30118-4
- Ison-Zintilini, M.S. & Morelato-Giménez, G.S. (2008). Habilidades socio-cognitivas en niños con conductas disruptivas y víctimas de maltrato. *Universitas Psychologica*, 7(2), 357-367.
- Jewkes, R., Flood, M., & Lang, J. (2015). From work with men and boys to changes of social norms and reduction of inequities in gender relations: a conceptual shift in prevention of violence against women and girls. *The Lancet*, 385(9977), 1580-1589. https://dx.doi.org/10.1016/SO14o-6736(14)61683-4

- Lee, R.D. & Chen, J. (2018). Adverse childhood experiences, mental health, and excessive alcohol use: examination of race/ethnicity and sex differences. *Child Abuse and Neglect*, 69, 40-48. https://dx.doi.org/10.1016/j.chiabu.2017.04.004
- Lehnig, F., Nagl, M., Stepan, H., Wagner, B., & Kersting, A. (2019). Associations of postpartum mother-infant bonding with maternal childhood maltreatment and postpartum mental health: a cross-sectional study. *BMC Pregnancy & Childbirth*, 19, 278. https://dx.doi.org/10.1186/s12884-019-2426-0
- Leonard, K.E. & Quigley, B.M. (2017). Thirty years of research show alcohol to be a cause of IPV: future research needs to identify who to treat and how to treat them. *Drug Alcohol Review*, 36(1), 7-9. https://dx.doi.org/10.1111/dar.12434
- Ley Orgánica 1/2004, de 28 de diciembre, de Medidas de Protección Integral Contra la Violencia de Género. (2004). *Boletín Oficial del Estado*, 29 de diciembre de, núm. 313, 1-53. https://www.boe.es/buscar/act.php?id=BOE-A-2004-21760
- Lila, M., Gracia, E., Catalá-Miñana, A., Santirso, F. A., & Romero Martínez, A. (2016). El consumo abusivo de alcohol en inmigrantes latinoamericanos participantes en programas de intervención para maltratadores: importancia de la adherencia al tratamiento. *Universitas Psychologica, 15*(4). https://dx.doi.org/10.11144/Javeriana.upsy15-4.caai
- Lizana, R. (2012) A mí también me duele: niños y niñas víctimas de la violencia de género en la pareja. Barcelona: Gedisa.
- Llopis, C., Rodríguez, M.I., & Hernández, I. (2014). Relation between alcohol consumption and violence of men towards their relationships in the UVIVG of Seville (Spain).

 Cuadernos de Medicina Forense, 20(4), 151-169.

 https://dx.doi.org/10.4321/S1135/S1135-76062014000300002

- Ministerio de Sanidad, Servicios Sociales e Igualdad (2015). Macroencuesta de la Violencia contra la Mujer 2015. Madrid: Ministerio de Sanidad, Servicios Sociales e Igualdad. Centro de Publicaciones.
- McCarthy, K.J., Mehta, R., & Haberland, N.A. (2018). Gender, power, and violence: a systematic review of measures and their association with male perpetration of IPV. *Plos One*, 13(11), e0207091. https://dx.doi.org/10.1371/journal.pone.0207091
- Monahan, J. (1992). Mental disorder and violent behavior. *American Psychologist*, 47, 511-521. https://dx.doi.org/10.1037/0003-066X.47.4.511
- Panadero, S., Vázquez, J.J., & Martín, R.M. (2017). Alcohol, poverty and social exclusion: alcohol consumption among the homeless and those at risk of social exclusion in Madrid. *Adictions*, 29(1), 33-36. https://dx.doi.org/10.20882/adicciones.830
- Pulido-Rull, M.A., Alba-Sánchez-Losada, M.F., Cárcamo-Sierra, R., Ledesma-Gómez, M., Reyes-Contreras, J.V., & Vargas-Toledo, M.R. (2012). Correlaciones entre religiosidad, aprendizaje social y abuso de alcohol en estudiantes de dos universidades particulares de la ciudad de México. *Journal of Behavior, Health and Social Issues*, 4(1), 9-26. https://dx.doi.org/10.5460/jbhsi.v4.1.32968
- Riggs, D.S. & Caulfield, M.B. (2000). Risk for domestic violence: factors associated with perpetration and victimizacion. *Journal of Clinical Psychology*, 56 (10), 1289-1316. https://dx.doi.org/10.1002/1097-4679(200010)56:10<1289::AID-JCLP4>3.0.CO;2-Z
- Rivas-Rivero, E., Bonilla-Algovia, E., & Vázquez, J.J. (2020). Factores de riesgo asociados al consumo de sustancias en mujeres víctimas de maltrato en contexto de pobreza. *Anales de Psicología*, 36(1), 173-180. https://dx.doi.org/10.6018/analesps.362541
- Roca, P., Panadero, S., Rodríguez-Moreno, S., Martín, R., & Vázquez, J.J. (2019). "Puerta giratoria" a la situación sin hogar. Influencia de la salud, consumo de alcohol y padecimiento de sucesos vitales estresantes en el número de episodios en situación sin

- hogar. *Anales de Psicología*, *35*(2), 175-180. https://dx.doi.org/10.6018/analesps.35.2.297741
- Rothman E.F., Edwards E.M., Heeren T., & Hingson R.W. (2008). Adverse childhood experiences predict earlier age of drinking onset: Results from a representative US sample of current or former drinkers. *Pediatrics*, 122(2), 298–304. https://dx.doi.org/10.1542/eds.2007-3412
- Ruggles, S. (2015). Patriarchy, Power, and Pay: The Transformation of American Families, 1800–2015. *Demography*, 52(6), 1797–1823. https://dx.doi.org/10.1007/s13524-015-0440-z
- Shakoor, S., Theobald, D., & Farrington, D. (2020). Intergenerational continuity of intimate partner violence perpetration: an investigation of possible mechanism. *Journal Interpersonal Violence*. https://dx.doi.org/10.1177/0886260520959629
- Shaul, L., Blankers, M., Koeter, M.W.J., Schippers, G.M., & Goudriaan, A.E. (2019). The role of motivation in predicting addiction treatment entry among offenders with substance use disorders under probation supervision. *International Journal of Offender Therapy and Comparative Criminology*, 63(14), 2453-2465. https://dx.doi.org/10.1177/0306624x19849554
- Shin, S.H., Edwards, E.M., & Heeron, T. (2009). Child abuse and neglect: relations to adolescent binge drinking in the national longitudinal study of adolescent health (addhealth) study. *Addictive Behaviors*, 34(3), 277-280. https://dx.doi.org/10.1016/j.addbeh.2008.10.023
- Simonelli, A., Pasquali, C., & De Palo, F. (2014). Intimate partner violence and drug-addicted women: from explicative models to gender-oriented treatments. *European Journal of Psychotraumatology*, 5. https://dx.doi.org/10.3402/ejpt.v5.24496

- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L. R. A., & Van Ijzendoorn, M. H. (2015). The prevalence of child maltreatment across the globe: review of a series of meta-analyses. *Child Abuse Review*, 24(1), 37-50. https://dx.doi.org/10.1002/car.2353
- Stuart, G.L., Temple, J.R., Follansbee, K.W., Bucossi, M.M., Hellmuth, J.C., & Moore, T.M. (2008). The role of drug use in a conceptual model of intimate partner violence in men and women arrested for domestic violence. *Psychology of Addictive Behaviors*, 22, 12-24.
- Thornberry, T., Freeman-Gallant, A., Lizotte, A.J., Krohn, M., & Smith, C. (2003). Linked lives: the intergenerational transmission of antisocial behavior. *Journal of Abnormal Child Psychology*, 31(2), 171-184.
- VanderEnde, K., Mercy, J., Shawa, M., Kalanda, M., Hamela, J., Maksud, N. ... Hillis, S. (2016). Violent experiences in childhood are associated with men's perpetration of intimate partner violence as a young adult: a multistage cluster survey in Malawi. *Annals of Epidemiology*, 26(10), 723-728. https://dx.doi.org/10.1016/j.annepidem.201.08.007
- Vázquez, J.J., Panadero, S., & Martín, R. M. (2015). Regional and national differences in stressful life events: The role of cultural factors, economic development, and gender.

 American Journal of Orthopsychiatry, 85(4),392.

 https://dx.doi.org/10.1037/ort0000029
- Vázquez, J.J., Panadero, S., & Rivas, E. (2015). Happiness among poor women victims of intimate partner violence in Nicaragua. *Social Work in Public Health*, 30(1), 18-29. https://dx.doi.org/10.1080/19371918.2014.938389.
- Ventura-León, J.L. (2018). Intervalos de confianza para coeficiente omega: propuesta para el cálculo. *Adicciones*, 30(1), 77-78.
- Wardell, J., Strang, N.M., & Hendershot, C. (2017). Negative urgency mediates the relationship between childhood maltreatment and problems with alcohol and cannabis in late

- adolescence. *Addictive Behaviors*, 56, 1-7. https://dx.doi.org/10.1016/j.addbeh.2016.01.003
- Widom, C.S. (2017). Long-term impact of childhood abuse and neglect on crime and violence.

 Clinical Psychology: *Science and Practice*, 24(2), 186-02.

 https://dx.doi.org/10.1111/cpsp.12194
- Wilson, I.M., Graham, K., & Taft, A. (2014). Alcohol interventions, alcohol policy and intimate partner violence: A systematic review. *BMC Public Health*, 14, 881. https://dx.doi.org/0.1186/1471-2458-14-881
- World Health Organization (WHO, 2014). Global and regional estimates of violence against women. Geneva: WHO.
- Yoder, J., Dillard, R., & Leibowitz, G.S. (2017). Family experiences and sexual victimization histories: A comparative analysis between youth sexual and Grady et al. 35 nonsexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 62, 2917-2936. https://dx.doi.org/10.1177/0306624X17738063

Table 1. Sociodemographic characteristics of the sample.

	Have you had	problems with	Have you had	problems with
	alcohol	misuse?	drug n	nisuse?
	No	Yes	No	Yes
Nationality				
Spanish	36 (43.4%)	47 (56.6%)	48 (57.8%)	35 (42.2%)
Other nationalities	17 (45.9%)	20 (54.1%)	25 (67.6%)	12 (32.4%)
Marital status				
Single	18 (37.5%)	30 (62.5%)	24 (50%)	24 (50%)
Married	9 (60%)	6 (40%)	12 (80%)	3 (20%)
Domestic partnership	6 (54.5%)	5 (45.5%)	7 (63.6%)	4 (36.4%)
Separated	5 (41.7%)	7 (58.3%)	7 (58.3%)	5 (41.7%)
Divorced	14 (48.3%)	15 (51.7%)	18 (62.1%)	11 (37.9%)
Widower	1 (25%)	3 (75%)	4 (100%)	0 (0%)
Education level				
No studies	0 (0%)	9 (100%)	1 (11.1%)	8 (88.9%)
Basic education	13 (39.4%)	20 (60.6%)	19 (57.6%)	14 (42.4%)
Secondary education	21 (45.7%)	25 (54.3%)	28 (60.9%)	18 (39.1%)
Higher education	16 (55.2%)	13 (44.8%)	22 (75.9%)	24.1 (7%)
Not recognized	3 (100%)	0 (0%)	3 (100%)	0 (0%)
Employment status				
Non-working	5 (50%)	5 (50%)	6 (60%)	4 (40%)
Full-time with contract	37 (51.4%)	35 (48.6%)	48 (66.7%)	24 (33.3%)
Full-time without contract	4 (44.4%)	5 (55.6%)	4 (44.4%)	5 (55.6%)
Part-time with contract	3 (42.9%)	4 (57.1%)	3 (42.9%)	4 (57.1%)
Part-time without contract	0 (0%)	1 (100%)	0 (0%)	1 (100%)
Unemployed	4 (21.1%)	15 (78.9%)	11 (57.9%)	8 (42.1%)

 Table 2. Adverse childhood events experienced by the interviewees

	n	%	M ¹ (SD)
One of their parents had problems with substance misuse	26	21.5	8.63 years (4.912)
Experienced physical abuse	30	24.8	9.00 years (3.551)
Experienced psychological abuse	29	24.0	11.57 years (5.827)
Experienced sexual abuse	5	4.1	10 years (0.000)
Experienced bullying	13	10.7	12.28 years (3.592)
Had to leave home due to family conflicts	21	17.4	15.22 years (3.734)
Parents separated or divorced	34	28.1	14.45 years (10.240)
Witnessed abuse of her mother	23	19.0	12.85 years (6.280)
Has had problems with alcohol abuse at some point in their life	67	55.4	23.06 years (7.986)
Has had problems with drug abuse at some point in their life	47	38.8	23.40 years (6.064)

 $\overline{\text{Note}}$: 1 Mean age at which they experienced the adverse childhood events for the first time.

Table 3. Relationship between having had problems with alcohol misuse and adverse childhood events.

Alcohol misuse									
	Yes (n=67)	No (n=53)	χ2	p	OR	CI 95%			
One of their parents had	35.8% (24)	3.8% (2)	17.907	.000	14.233	[3.181 - 63.689]			
problems with substance									
abuse									
Experienced physical abuse	34.3% (23)	11.3% (6)	8.547	.003	4.095	[1.524 - 10.999]			
Experienced psychological	34.3% (23)	9.4% (5)	10.252	.001	5.018	[1.756 - 14.341]			
abuse									
Experienced sexual abuse	6.0% (4)	1.9% (1)	1.236	.266	3.302	[.358 - 30.455]			
Experienced bullying	13.4% (9)	7.5% (4)	1.061	.303	1.901	[.551 - 6.553]			
Had to leave home due to	26.9% (18)	5.7% (3)	9.217	.002	6.122	[1.695 - 22.113]			
family conflicts									
Parents separated or divorced	25.4% (17)	11.3% (6)	3.772	.052	2.663	[.968 - 7.329]			
Witnessed abuse of her	40.3% (27)	13.5% (7)	10.332	.001	4.339	[1.705 - 11.043]			
mother									

Note: $\chi 2 = \text{chi-squared}$; p = significance; OR = odds ratio; CI 95% = OR confidence interval of 95%.

Table 4. Results of the logistic regression analysis to alcohol misuse.

	В	Er	Wald	p	Exp(B)	CI 95%
One of their parents had problems	2.684	.911	8.668	.003	14.637	[2.453 - 87.354]
with substance abuse						
Experienced physical abuse	1.246	.751	2.755	.097	3.477	[.798 - 15.144]
Experienced psychological abuse	201	.851	.056	.814	.818	[.154 - 4.337]
Experienced sexual abuse	371	1.621	.052	.819	.690	[.029 - 16.532]
Experienced bullying	626	.936	.447	.504	.535	[.085 - 3.352]
Had to leave home due to family	1.226	.841	2.125	.145	3.407	[.656 - 17.702]
conflicts						
Parents separated or divorced	989	.835	1.402	.236	.372	[.072 - 1.912]
Witnessed abuse of her mother	1.586	.580	7.477	.006	4.883	[1.567 - 15.215]
Constant	709	.272	6.783	.009	.492	

Note: B: coefficient; p: probability; Exp(B): exponential coefficient; CI: confidence interval at 95%.

Table 5. Relationship between having had problems with drug misuse and adverse childhood events.

	Yes (n=47)	No (n=73)	χ2	p	OR	CI 95%
One of their parents had	34.0% (16)	13.7% (10)	6.972	.008	3.252	[1.323 - 7.994]
problems with substance abuse						
Experienced physical abuse	34.0% (16)	17.8% (13)	4.112	.043	2.382	[1.018 - 5.577]
Experienced psychological	36.2% (17)	15.1% (11)	7.117	.008	3.194	[1.332 - 7.660]
abuse						
Experienced sexual abuse	6.4% (3)	2.7% (2)	.950	.330	2.420	[.389 - 15.063]
Experienced bullying	6.4% (3)	13.7% (10)	1.584	.208	.430	[.112 - 1.651]
Had to leave home due to	31.9% (15)	8.2% (6)	11.120	.001	5.234	[1.857 - 14.753]
family conflicts						
Parents separated or divorced	21.3% (10)	17.8% (13)	.222	.638	1.247	[.497 - 3.132]
Witnessed abuse of her mother	31.9% (15)	26.4% (19)	.426	.514	1.308	[.584 - 2.930]

Note: χ 2 = chi-squared; p = significance; OR = odds ratio; CI 95% = OR confidence interval of 95%.

 Table 6. Results of the logistic regression analysis to drug misuse.

	В	Er	Wald	p	Exp(B)	CI 95%
One of their parents had problems	1.344	.638	4.442	.035	3.836	[1.099 - 13.392]
with substance abuse						
Experienced physical abuse	.677	.692	.957	.328	1.967	[.507 - 7.630]
Experienced psychological abuse	.677	.808	.704	.402	1.969	[.404 - 9.586]
Experienced sexual abuse	922	1.275	.523	.470	.398	[.033 - 4.844]
Experienced bullying	-2.714	1.040	6.806	.009	.066	[.009509]
Had to leave home due to family	2.012	.795	6.410	.011	7.474	[1.575 - 35.493]
conflicts						
Parents separated or divorced	-1.224	.803	2.323	.127	.294	[.061 - 1.419]
Witnessed abuse of her mother	.271	.539	.252	.616	1.311	[.456 - 3.770]
Constant	979	.282	12.071	.001	.376	

Note: B: coefficient; p: probability; Exp(B): exponential coefficient; CI: confidence interval at 95%.

Table 7. Relationship between having had problems with alcohol and drug misuse and adverse childhood events.

Alcohol and drug misuse								
	Yes (n=40)	No (n=46)	χ2	p	OR	IC 95%		
One of their parents had	37.5% (15)	2.2% (1)	17.632	.000	10.286	[1.530 - 69.165]		
problems with substance abuse								
Experienced physical abuse	32.5% (13)	6.5% (3)	9.535	.002	3.276	[1.162 - 9.239]		
Experienced psychological	35.0% (14)	4.3% (2)	13.275	.000	5.029	[1.358 - 18.615]		
abuse								
Experienced sexual abuse	7.5% (3)	2.2% (1)	1.369	.242	2.195	[.398 - 12.121]		
Experienced bullying	7.5% (3)	8.7% (4)	.041	.840	.930	[.474 - 1.826]		
Had to leave home due to	32.5% (13)	2.2% (1)	14.437	.000	8.750	[1.312 - 58.334]		
family conflicts								
Parents separated or divorced	25.0% (10)	13.0% (6)	2.020	.155	1.524	[.784 - 2.961]		
Witnessed abuse of her mother	37.5% (15)	15.6% (7)	5.316	.021	1.896	[.996 - 3.608]		

Note: $\chi 2 = \text{chi-squared}$; p = significance; OR = odds ratio; CI 95% = OR confidence interval of 95%.

Table 8. Results of the logistic regression analysis (dependent variable: simultaneous alcohol and drug misuse).

	В	Er	Wald	p	Exp(B)	IC 95%
One of their parents had problems	-3.038	1.084	7.863	.005	.048	[.006401]
with substance abuse						
Experienced physical abuse	-1.880	1.262	2.220	.136	.153	[.013 - 1.809]
Experienced psychological abuse	-2.165	.838	6.676	.010	.115	[.022593]
Experienced sexual abuse	1.043	2.429	.185	.667	2.838	[.024 - 31.323]
Experienced bullying	2.558	2.117	1.460	.227	12.914	[.204 - 18.484]
Had to leave home due to family	-2.135	1.434	2.217	.137	.118	[.007 - 1.965]
conflicts						
Parents separated or divorced	2.870	1.672	2.947	.086	17.635	[.666 - 66.947]
Witnessed abuse of her mother	-1.266	.756	2.803	.094	.282	[.064 - 1.241]
Constant	.854	.281	9.227	.002	2.350	

Note: *B*: coefficient; *p*: probability; *Exp*(*B*): exponential coefficient; CI: confidence interval at 95%.