

Violent crime, abuse and non-use of drugs in adolescents at recidivism risk

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Abstract: We present an original study on drug use/withdrawal in adolescents, and its association with the risk of violent recidivism. A sample of 192 participants answered the SAVRY questionnaire –Structured Assessment of Violence Risk in Youth–, with the aim of analyzing the association between the risk of recidivism in violent crimes involving drug use and withdrawal. The results showed that non-consumption is associated to risk of recidivism in violent intra-family crimes; the consumption of cocaine was associated to theft with violence and intimidation, while consumption of various drugs to recidivism risk in several crimes, being battery quite common. We conclude that family communication and community prevention programs are extremely important to strengthen positive socialization and develop protective factors to avoid misfits and violent crimes.

Key words: juvenile delinquency, types of crime, drug use/non-consumption, risk assessment, recidivism.

Resumen: Presentamos un estudio original sobre consumo/abstinencia de drogas en adolescentes y su asociación con el riesgo de reincidencia violenta. A una muestra de 192 sujetos se le aplicó el cuestionario SAVRY –Structured Assessment of Violence Risk in Youth–, con el objetivo de analizar la asociación entre el riesgo de reincidencia en delitos violentos y el consumo y abstinencia de drogas. Los resultados mostraron que: el no consumo se asocia al riesgo de reincidencia en delitos violentos intrafamiliares, el consumo de cocaína a robo con violencia e intimidación, y el policonsumo de drogas al riesgo de reincidencia en diferentes delitos, siendo común el ataque contra las personas. Las conclusiones exponen la importancia de la comunicación intrafamiliar y los programas comunitarios de prevención para fortalecer la socialización positiva y desarrollar factores de protección que eviten conductas inadaptadas y delitos violentos.

Palabras clave: delincuencia juvenil, tipos de delito, consumo/no consumo de drogas, evaluación del riesgo, reincidencia.

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Introduction¹

The factors that influence the commission of juvenile offenses have been extensively studied; It is important to know the associations that influence adolescent delinquent behaviors in order to assess the risk of recidivism more accurately and establish interventions to mitigate disruptive processes and ensure social welfare. The present study shows the analogy of consumption or abstinence with the estimation of the risk of criminal recidivism with the use of violence.

We found research that has studied the relationship between drug use and criminal behavior (Miller *et al.*, 2015; Nordstrom and Dackis, 2011). Although they do not establish a clear link between this consumption and the commission of crimes, so that they do not confirm whether such consumption may be a predictor or activator of criminal behavior or a consequence of the criminal activity itself (Menard *et al.*, 2006). Scientific literature does not agree on this issue; however, we have found previous studies that conclude that drug use is the factor that triggers criminal behavior (Brook *et al.*, 1996; McLaughlin *et al.*, 2000). Other research points to the opposite: the absence of a decisive relationship between the commission of a crime and drug use or abuse (Rechea-Alberola and Fernández-Molina, 2000; Rodríguez-Costas, 1999).

According to several studies, violent behavior is related to different risk factors: the analyses of Millán-Valenzuela and Pérez-Achundia (2019) find a connection between poverty, education and delinquency. Some studies based on the explanatory model of the intergenerational theory of violence consider that having witnessed aggressive behaviors at an early age within the socialization environment (family, school, friends...) may promote the learning of violence (Buehler *et al.*, 2006; Calvete *et al.*, 2015). We know that shared custody in divorce cases affects intra-family communication (Ruiz-Callado and Alcázar, 2019) or that insecure attachment models between parents and children (Arias, 2013; Pons-Salvador, 2007), single-parent families (Ibabe *et al.*, 2007) or neglectful parenting styles (Underwood *et al.*, 2011) also affect these processes. Even fractures with school and bullying

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experiences do not allow for complete socialization (Merrell *et al.*, 2006; Raitanen *et al.*, 2017).

In this line, there is research that shows a relationship between having been the victim of active and passive violence and subsequently having been responsible for violent attacks of both gender (Martínez *et al.*, 2016) and filio-parental violence (Acuña and Fernández-Monroy, 2009; Contreras and Cano, 2016; Sánchez-Heras *et al.*, 2010), among other criminal offences.

In addressing the use that adolescents make of addictive substances and their possible link with criminal behavior, we find studies that explain how the transition from use to dependence occurs, and how their tolerance increases, naturalizing it in their relationship and socialization contexts –school, work, relationship networks, etcetera– (Skara *et al.*, 2008). The increase in violent behavior is linked to the spread of leisure patterns related to alcohol and drug consumption (Anderson *et al.*, 2007). Non-normative environments, with little adult supervision and outside the norms of social control, enable the uncontrolled emergence of drugs in the daily sphere of the adolescent (Doran *et al.*, 2012).

Original research indicates that the relationship between drug use and crime depends on the social adjustment of the adolescent consumer with their environment; that is, the greater the adjustment, the lower the consumption and, therefore, the more stable behavior patterns; and the lower the social adjustment, the more consumption and the more violent and maladaptive behavior patterns (Uceda *et al.*, 2016).

In this sense, the relationship between drug and crime is associated with: antisocial behaviors, disadvantaged ethnic groups, low family adjustment and criminal history in the close family nucleus (Sexton and Turner, 2010), linkage with marginal environments and social exclusion (Pierce *et al.*, 2017).

The interpersonal relationships that occur between adolescents who use drugs are a factor that has been associated with juvenile delinquency (Melotti and Passini, 2018). Groups of adolescents residing in exclusionary environments, with low parental control, without support networks or positive ties and with little ability to resolve conflicts, entrench practices that combine violence and drug use (Cueva, 2012). Valenzuela and Larroulet (2010) identify the probability of recidivism, increased between one and six times, of those young offenders who use drugs.

The substance most associated with violent crime is cocaine; research by Bennett *et al.* (2008) establishes that it is directly linked to violent patterns of certain crimes, while cannabis, as the most widely used illegal

substance among adolescents in the juvenile justice system, is more likely to be associated with crime (Thoumi, 2015). Data from the latest report of the Spanish Observatory on Drugs and Addictions (OEDA, 2018) show us that the prevalence in Spain is as follows: they consumed cannabis 26.3% of adolescents and young people aged between 15 and 24 years, a figure slightly higher than the European average, which stands, according to the EMCDDA (2017), at 21.7%.

Regarding alcohol, the EMCDDA (2017) points out that it is the legal substance most consumed by adolescents: 76.9%; an issue that constitutes an essential risk factor in its association with violent crimes, since it is in turn the fourth in the submissiveness scale (Nutt *et al.*, 2007) and increases up to five times the probability of risk of recidivism in the commission of crimes with violence when it has been consumed (Livingston, 2014). A study by Vilalta (2010) in Mexico City agreed with this same question.

Scientific research by Nutt *et al.* (2007) reported that the substances that generate the greatest dependence, in this order, are: heroin, cocaine, barbiturates and alcohol. Finally, polydrug use (three or more substances) is a risk factor in adolescent criminal recidivism (Scheidell *et al.*, 2018), bearing in mind that consumption makes it possible to associate with which type of drug is incurred in greater or lesser correlation with crimes.

The assessment of criminal recidivism in adolescents is a topic of wide debate and replication. Many investigations have focused on the elements that interact in the assumption of criminal behaviour with the use of violence by adolescents (Pierce *et al.*, 2017; Rechea and Fernandez-Molina, 2000; Skara *et al.*, 2008). In this sense, it is important to point out that risk assessment involves variables such as: socialization territory, peer group, exposure to previous violence, resources and networks, and drug use.

Juvenile criminal systems make large differences between crimes perpetrated through the use of violence (Lindquist, 2016). It is true that there are antisocial behaviors that do not necessarily require violent behavior: document fraud, crimes against public health, swindling, theft, etc. But there are also those that do. These could be divided between those committed against things (robbery with force or crimes against property and socioeconomic order, arson...) and those committed against the protected legal asset that enjoys greater guarantees: the life or privacy of persons (robbery with violence, threats, sexual assault, injuries or filio-parental violence, among others). The Organic Law on Criminal Responsibility of Minors 5/2000 (Ministry of Justice, 2000) in Spain is more sensitive to crimes against persons, because according to De Vicente (2018) they involve

behaviors that, by the nature of the legal good violated, are considered more serious. Therefore, crimes involving the use of violence are of greater legal concern, since they also affect life and social control.

There are currently various instruments that are capable of assessing risk and predicting criminal activity. The most commonly used are the Youth Level Service/Case Management Inventory (Hoge and Andrews, 2006) and the Structured Assessment of Violence Risk in Youth (SAVRY) (Borum *et al.*, 2003). Researchers studying violent crime consider the SAVRY as a reference tool (Lodewijks *et al.*, 2010; Navarro-Pérez *et al.*, 2020; Schmidt *et al.*, 2011). SAVRY is a questionnaire that includes protective factors that interact with risk variables; in addition, it allows the identification of different levels of risk and collaborates in the creation of programs depending on the vulnerability level of the subject.

The present research attempts to identify the possible correlation between non-consumption/ consumption-policonsumption with the estimation of the risk of committing violent criminal practices. To this end, three hypotheses are proposed:

H1 The absence of drug use by adolescents is associated with the risk of recidivism in crimes of filioparental violence.

H2 Cocaine use is associated with a higher probability of committing the crime of robbery with violence and intimidation.

H3 Polydrug use, such as alcohol, cannabis or cocaine, is associated with different crimes commonly characterized by the use of violence.

Method

Participants and procedure

The sample consisted of 192 adolescents admitted by judicial resolution in Internment Centers for Judicial Measures in the Valencian Community (Spain); 77% were males and 23% females.

The inclusion criteria of the subjects participating in the sample are:

- Age: from 14 to 21 years old.
- Adolescents subjected to judicial internment measures with final sentence.
- Commission of crimes with the use of violence.

This research was conducted in accordance with the recommendations of the ethics committees of the participating institutions and complied with national standards –Law 14/2007, of July 3, 2007, on Biomedical

Research– (Jefatura del Estado, 2007), and international research ethics. The above results are extracted from a broader investigation. The present study was approved without objections by the Ethics and Experimental Research Commission; and the individuals who met the inclusion criteria were previously provided with the necessary information, gave their written voluntary participation consent and informed consent to legal guardians, in accordance with Declaración de Fortaleza (2013). Likewise, participants were informed of the possibility of interrupting or refusing to participate at any time.

Instruments

The main instrument used in this research was the Structured Assessment of Violence Risk in Youth (SAVRY) (Borum *et al.*, 2003) with the Spanish adaptation by Vallés and Hilterman (2006). This is a tool that predicts criminal recidivism using 30 variables, of which 24 are risk and six are protective; moreover, it presents wide replication by the scientific community (Lodewijks *et al.*, 2008; Navarro-Pérez and Pastor, 2017; Shepherd *et al.*, 2014; Ortega-Campos *et al.*, 2017), especially when dealing with adolescents deprived of liberty, as in this study (Gammelgard *et al.*, 2008; Klein *et al.* 2012).

From the risk factors, ten refer to the adolescent's past, six are contextual and eight are individual. The risks are rated from low (0) to high risk (2). Protective factors are rated as present (1) or absent (0). The SAVRY risk factor indicator on drug use was used for this study, and demographic factors such as use/abstinence, type of drug consumed and type of crime committed were also applied to establish links between crimes committed with violence and drug use/abstinence and type of drug. Likewise, for the present study, SAVRY allows predicting the risk of criminal recidivism, and then connecting it with both drug use/abstinence and immersion in criminal behavior involving violence.

Statistical analysis

Frequencies were calculated for all variables under study. The relationships between the indicators of drug use and the type of crime were analyzed with chi-square tests of independence, applied to the contingency tables. Pearson's chi-square test usually uses the chi-square approximation, but in this case an exact p-value was calculated using the true probability distribution.

Relationships were declared statistically significant when $p < .05$. In addition to the chi-square test, a measure of effect size was estimated for each test, in this case Cramer's V (V). The usual cutoff values for declaring effects as medium or large when the degrees of freedom are 5 or higher are .04, .13 and .22 (Cohen, 1988).

To facilitate the interpretation of the contingency tables, percentages per row and standardized residuals were calculated. The standardized residual is a measure of the strength of the difference between the observed values and the expected values, and they measure the significance of the cells for the chi-square value. The standardized residual allows us to identify which cells contribute the most to the association found and which contribute the least. The general rule for determining what the standardized residual means is: residuals less than -2, the observed frequency of the cell is less than the expected frequency (under the null hypothesis) and residuals higher than 2, the observed frequency is more than the expected frequency. The larger the residuals in absolute value, the bigger the difference between the observed and expected frequencies. All statistical analyses were performed in SPSS 24.

Results

In this research, the main variables of interest were the type of violent crime and the history of drug use (poly drug use) and non-use. Figure 1 shows the percentages for each type of crime committed by adolescents. The majority (57.3%) committed crimes of filiofamilial violence against their family caregivers, followed by robbery with force, violence and intimidation. Other crimes were less representative.

With respect to drug use, Figure 2² shows, in a compact form, the percentages of the subjects in the sample who used various types of substances before being arrested, tried and admitted to an internment center. Most of them stated that they consumed alcohol regularly. Analyses reported less frequent use of cannabis, but even so 69.3% of them stated that they used it regularly. Cocaine use was much less frequent: 15.7% occasional and 13.1% regular.

In addition, based on these frequencies, a new variable was coded to separate the adolescents in the sample who declared that they never consumed any of the substances mentioned from those who declared some

2 All figures and tables can be found in the Annex at the end of this article (Editor's note).

type of consumption: 6.8% never consumed legal or illegal substances, while 93.2% consumed, at least occasionally, some type of substance.

When adolescents who never took drugs were compared with those who reported having used drugs with respect to their types of offenses, the chi-square was statistically significant: $\chi^2(7) = 13.946$, $p = .03$, $V = .256$. There were differences between the two groups in the likelihood of the types of crimes they committed. Table 1 provides the cross classification of the frequencies of both groups by type of crime. Looking at the percentages and standardized residuals, adolescents who never used drugs were more likely to be at risk of recidivism for offending against the authority of parents or primary caregivers. Those who did not use drugs were less likely to steal with violence and intimidation than those who used some type of drug.

Drug use among adolescents and its relationship with the type of crime was analyzed in more detail on a substance by substance basis. First, a chi-square test of independence between alcohol consumption and type of crime was used, and the results were not significant: $\chi^2(7) = 5.077$, $p = .656$, $V = .163$. The relationship between cannabis use and type of crime was also not statistically significant: $\chi^2(7) = 5.049$, $p = .679$, $V = .162$. However, when cocaine use was studied in relation to the type of crime, the relationship was statistically significant and large: $\chi^2(7) = 21.379$, $p = .009$, $V = .335$. Table 2 provides frequencies, percentages and standardized residuals. The larger residuals clearly showed that those who used cocaine were more likely (a residual of 4) to commit a robbery with intimidation than those who did not use cocaine (a residual of -4).

On the other hand, the residuals also showed that those who did not use cocaine had a higher risk of recidivism (residual of 3.1) for committing filiofamilial violence than those who used cocaine (residual of -3.1). The percentages exhibited the same pattern. Of those who did not use cocaine, 61.4% committed crimes of filiofamilial violence, which represents 28% among cocaine users. Meanwhile, 48% of cocaine users and only 14.5% of non-cocaine users committed robbery with violence and intimidation.

As for polydrug use and the type of crime committed, the relationship was also statistically significant and large: $\chi^2(14) = 24.825$, $p = .036$, $V = .254$. Table 3 shows the results; among them, those associated with high residuals stand out. Adolescents who consumed alcohol, cannabis and cocaine were more at risk of recidivism in versatile criminal careers: gender violence (residual of 2.4) and attempted attacks on authority (residual of 2.6), while they were less likely to commit an intrafamily crime of filiofamilial violence (residual of -3.1).

Discussion

In contrast to studies on drug use and criminal involvement of adolescents in conflict with the law in the 1990s, which found a clear relationship between drug abuse and criminal activity (Brook *et al.*, 1996; Chaiken and Chaiken, 1990), recent research indicates that drug use cannot be considered as an isolated trigger of antisocial behavior (Menard *et al.*, 2006), nor of criminal practices characterized by the use of violence (Hedström e Ylikoski, 2010).

These studies have an impact on disconnecting the drug-crime spiral association (Zawadzki, 2007) because, as they describe, criminal activity is prior to drug use and, secondly, as the assumption of criminal behavior increases, so does drug use; therefore, there is a feedback and not a cause-effect of one on the other (Walters, 2018). More explicitly, Drazowski *et al.* (2015) report that “age, gender, exposure to violence, lower socioeconomic status, higher alcohol consumption, and a history of delinquency are more important than drug use for the purpose of committing a crime”. In this line of our work, Yoder and Caserta (2018) consider of great interest to be able to establish analogies between the responsibility and type of offense assumed by adolescents with substance abuse, and if these are related to a higher extent to some crimes than to others.

Regarding the first hypothesis, it is confirmed that adolescents who are not drug users would assume a criminal type of filiofamilial violence. The results of the research indicate that adolescents who did not use any type of addictive substance were more likely to commit crimes associated with filiofamilial violence. This contribution confirms Pereira’s (2006) definition of filiofamilial violence, which excludes cases related to drug use as they are isolated. In this line, we agree with Walsh and Krienert (2007), who –based on a sample of 17,957 adolescent CPV (Child Parent Violence)– concluded that a very low percentage of these were under the influence of alcohol or drugs in the episodes of criminal responsibility, being also highly violent assaults even using kitchen utensils, but with minor injuries. Therefore, in agreement with Obeida’s (2012) study in Switzerland with 829 subjects, we can conceptualize this violent delinquency as low intensity.

Regarding the second hypothesis, we proposed that cocaine use would be associated with the crime of robbery with violence, and the results showed that 48% of adolescent cocaine users committed robberies with violence and intimidation. The results allow us to confirm the hypothesis; moreover, in this direction, recent research agrees with Kuhns and Clodfelter (2009) that cocaine is a stress accelerating substance –linking it to experiences

of violent– behavior, particularly via intravenous or aspirated routes. A recent longitudinal study by Beharie *et al.* (2019) noted that youth who experienced childhood molestation and had prolonged premature cocaine use committed violent crimes against people and things during adolescence and young adulthood; moreover, they continued to have high rates of risk for criminal recidivism in adulthood. In this line, the results of Skara *et al.* (2008) indicated that subjects who maintain a strong dependence on cocaine show more problems related to interpersonal violence.

In addressing the last of the research hypotheses, related to validating whether the polydrug use of alcohol, cannabis and cocaine would be related to a greater association with heterogeneous criminal dynamics, characterized by the use of violence, it was found that adolescents who polydrug use were more likely to participate in robbery with violence and intimidation, gender violence and attacks on public authorities, while they were less likely to commit a crime of filiofamilial violence.

Thus, alcohol intoxication is frequently associated with aggressive and violent behavior (Parrott and Eckhardt, 2018). In a study with more than 1420 adolescents, Melotti and Passini (2018) evidenced that socio-psychological variables (i.e., violent culture and attitudes) have an important impact on the coexistence between poly-substance use and violent behavior.

Another longitudinal study with nearly 15000 subjects in the United States noted that children who experienced a traumatic childhood had problems virtually throughout their lives, with dependence on marijuana and other drugs, and the commission of various violent crimes (Scheidell *et al.*, 2018). Pierce *et al.* (2017) conclude that alcohol and opioid polydrug use prevention initiatives could be effective in reducing violent crime rates. Thus, according to our results, the polyconsumption of substances such as cannabis, alcohol and cocaine would have a similar effect on the association with violent crimes against people. In this sense, it is not possible to establish a relationship between consumption and criminal conduct, but it is possible to connect the risk of recidivism in the type of criminal offence that the adolescent commits and his level of association with drugs from non-consumption to polyconsumption.

The increase in the consumption of different types of substances generates serious problems of vital control; to a greater extent in the lives of adolescents and young people, affecting their cognitive development and becoming linked to versatile criminal careers. This representation occurs in criminal processes that have passed the initial phase: that is, the adolescent who commits crimes and has already connected with prolonged delinquency.

Tarin and Navarro (2006: 239) define these processes as “hidden phase and crest of the wave”, promoting connections with other high-risk activities such as polyconsumption itself, contact with other offenders (Braga, 2016), group delinquency or ties to violence to safeguard criminal status (Lynch *et al.*, 2003). There is sufficient scientific literature to corroborate this; some studies have even shown that in custodial settings, polydrug addicts receiving treatment using substitution drugs (methadone) continue to systematically abuse different drugs (Moreno *et al.*, 2016) and to extort and violate other young people deprived of their liberty (Martínez-Reyes *et al.*, 2019).

In recent years, research has confirmed that the consumption of different substances represents a risk both for committing crimes and for increasing the severity of crimes (Pérez and Ruiz, 2017); however, there is no scientific evidence showing that drugs are clearly a cause or consequence of criminal acts. Both temporalities appear connected to crime without a clear inclination.

Regarding the risks associated with recidivism, the studies consulted indicate that drug use and violence are factors that have a high impact on the reproduction of antisocial behavior (Justicia *et al.*, 2006; Menard *et al.*, 2006; Nordstrom and Dackis, 2011). The research by Navarro-Pérez *et al.* (2020) points to protective factors as indicators for predicting the risk of criminal recidivism. Another recent study by Ortega-Campos *et al.* (2020) focuses on the importance of protective factors in tackling social deviance, since adolescents allows for the reorientation of everyday circumstances and thus reduces delinquency to a short period of life; and Carbonell and Mestre (2019) emphasize cognitive distortions.

In this line, it is worth pointing out how international research groups emphasize the potential of violent adolescents, leaving their risk factors in second place. The success of social adjustment programs is determined by stimuli underpinned by social support, school involvement, resilience skills and coping with risk groups. Navarro-Pérez and Pastor (2017) confirm that training and motivation towards job skills decreases the risks of criminal recidivism, because they enable the adolescent to face difficulties. Therefore, protective factors are presented as a standard for reducing crime rates and thus addressing adolescent violent delinquency with greater strategies for monitoring and control.

The results of the research shed light in the professional field and guide towards the design of prevention, responsible consumption or detoxification programs, evaluating the association between violence, criminal responsibility and drug consumption/abstinence as a necessarily addressable cocktail to

favor collective well-being and safety (De Souza *et al.*, 2018). In addition, these results emphasize non-consumption as a factor that contributes to reducing violent crime, understanding filio-parental violence as a low-intensity criminal type (Walsh and Krienert, 2007). Therefore, it should be oriented to programs that reinforce or strengthen non-consumption as a preventive activity against crime and the use of violence in general. The studies by Beharie *et al.* (2019) highlight the importance of working on abstinence, in order to decrease the levels of violent delinquency, which may even extend into adulthood. The need to collaborate with juvenile criminal courts in the prediction of the risk of recidivism with use of violence is established. Criminal treatment programs could have an impact on these issues; firstly and referring to crimes against persons, as a protection mechanism towards victims and at the same time as a deterrent for juvenile offenders and opt for correct decisions (Bavolar and Bacikova-Sleskova, 2020).

Secondly, regarding the versatility performances in criminal commission, the results suggest that perhaps this dimension can be considered in the association between polycriminal use and diverse criminal activity, in order to enhance the offender's awareness of the functional analysis that connects with the crime. In this line, cognitive training programs make it possible to anticipate responses. The work of Raitanen *et al.* (2017), through narrative proposals, make it possible to anticipate the consequences of certain deviant behaviors in the thinking structure of violent adolescents, coming from exclusionary environments. These cognitive reflections allow developing adolescents' empathy from their own violent experiences, anticipating from a critical perspective (Barry, 2016) the consequences derived from an irresponsible use of their freedom. Through these actions, adolescents are able to identify that drug use has a direct consequence with illicit and violent activities; therefore, reflexively connecting with the foreseeable consequences allows them to be more aware of their reality and the risks associated with it.

In line with different national and international studies (Arias, 2013; Del Moral *et al.*, 2015; Justicia *et al.*, 2006; Justicia and Cantón, 2011; Montero *et al.*, 2020), the results obtained in this research impel us to design prevention programs aimed at the family and school, establishing as priority objectives those that make it possible to impact thinking and foster interpersonal communication skills between parents and children, in addition to other tools that allow empowering adolescents towards responsibility and positive socialization.

Conclusions

The present research connects the three concepts (drug abuse/non-use, risk of recidivism and violence as a reprehensible connotation). It delves into protective factors, cognitive-reflective variables of critical thinking and tools to identify and establish re-educational, re-socializing programs, with the purpose of redirecting criminal life trajectories with the use of violence and drug abuse/non-consumption.

In short, we believe it is necessary to incorporate guidelines that have an impact on psychosocial support to reduce vulnerability, community prevention programs on drug use and abuse, in order to strengthen protective factors and increase the strengths of adolescents.

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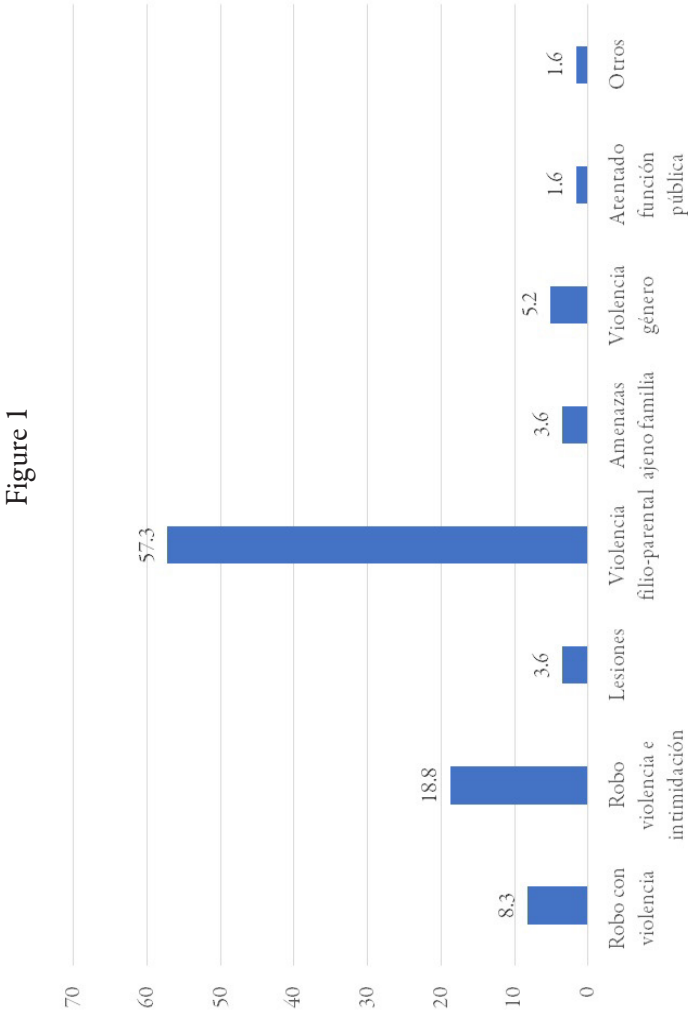
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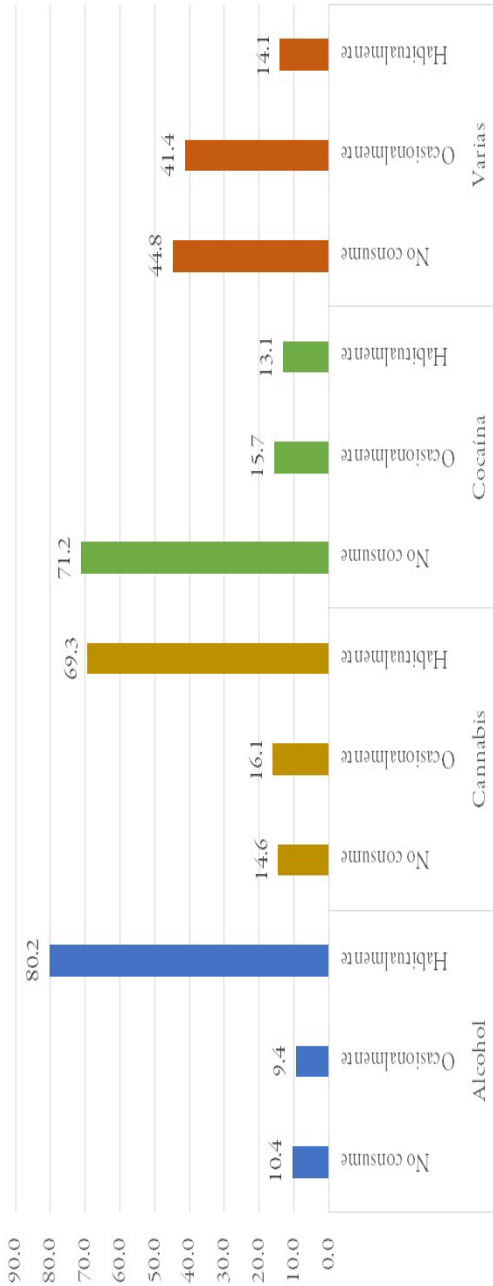
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Annex



Source: (authors') own elaboration. Based on SAVRY (2003).

Figure 2
Percentages of consumption by type of substance



Source: (authors') own elaboration. Based on SAVRY (2003).

Table 1
 Contingency table of type of crime and substance use/non-use: frequencies, percentages and standardized residuals

Robbery with force Robbery with violence and intimidation		Injuries	Filioparental violence	Threats	Type of crime			
					Gender violence	Attack on authority	Others	
Substance	Yes	Count	16	36	7	100	7	2
		%	8.9%	20.1%	3.9%	55.9%	3.9%	1.1%
	Residues		1.1	1.8	.7	-1.5	.7	-1.8
	No	Count	0	0	0	10	0	1
		%	0.0%	0.0%	0.0%	76.9%	0.0%	7.7%
	Residues		-1.1	-1.8	-7	1.5	-7	1.8

Source: (authors') own elaboration. Based on SAVRY (2003).

Table 2
Contingency table of type of crime and cocaine use:
frequencies, percentages and standardized residuals

Robbery with force Robbery with violence and intimidation			Type of crime						
			Injuries	Filioparental violence	Threats	Gender violence	Attack on authority	Others	
Substance	No	Count	14	24	5	102	7	2	3
	cocaine	%	8.4%	14.5%	3.0%	61.4%	4.2%	1.2%	1.8%
	Residues		.1	-4.0	-1.2	3.1	1.0	.3	-1.0
Habitual		Count	2	12	2	7	0	1	0
	cocaine	%	8.0%	48.0%	8.0%	28.0%	0.0%	4.0%	0.0%
	Residues		-.1	4.0	1.2	-3.1	-1.0	-3	1.0

Source: (authors') own elaboration. Based on SAVRY (2003).

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