

Relationship between psychoactive substance use and family maltreatment: a prison population analysis

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Título: Relación entre el uso de sustancias psicoactivas y el maltrato familiar: Un análisis en población penitenciaria.

Resumen: El estudio se ha enmarcado en el análisis de la relación entre el contexto familiar y conductas infractoras a corta edad, a considerar delictivas en la edad adulta, con el consumo de drogas, siendo el objetivo establecer la posible influencia que el maltrato familiar durante el período de socialización tiene en una edad temprana de inicio de un consumo de drogas en una muestra de reclusos del establecimiento penitenciario de Villabona (Asturias, España). El estudio se realizó con un total de 157 internos que participaron de manera voluntaria, a la vez que se considera como variable predictora la violencia física y psicológica de los padres y hermanos y variable criterio el consumo de sustancias psicoactivas. De los resultados obtenidos a través del análisis de supervivencia, mediante el método de regresión de Cox, y mediado, tanto por el estado del interno como por el delito cometido por el que cumplen condena en prisión, se concluye la importancia del maltrato sufrido en el seno familiar, en el inicio del consumo más temprano de tabaco, alcohol, cocaína, heroína y anfetaminas según el nivel de reincidencia, así como en el inicio de consumo de alcohol, cannabis, fármacos, cocaína, anfetaminas y drogas de diseño según el tipo de delito.

Palabras Clave: Maltrato; drogas; familia; delincuencia.

Abstract: The present study is framed within the analysis of the relationship between family background and offending behaviour at young age, considered crime during adulthood; and drug use. The aim is to establish the possible influence of family maltreatment experienced during the socialization period on the early onset of drug use in a sample of prison inmates from the Villabona Penitentiary (Asturias, Spain). The study was performed with a total of 157 inmates who participated voluntarily. Physical and psychological violence exercised by parents and siblings was considered a predicting variable, with psychoactive substances consumption being considered a dependent variable. Analysis of survival was performed using the Cox regression method, and is therefore mediated by both the type of inmate (i.e. primary or recidivist) and the type of crime for which they are serving time in prison. According to the rate of recidivism, results reveal the importance of maltreatment experienced within families in the earlier onset of tobacco, alcohol, cocaine, heroin and amphetamines use. Likewise, according to the type of crime, maltreatment within the family influences the initiation of alcohol, cannabis, prescription drugs, cocaine, amphetamines and designer drugs consumption.

Key words: Maltreatment; drugs; family; delinquency.

Introduction

The relevance of this study arises from the systematic observation carried out in the everyday practice of the penitentiary institutions. Here, the problem of drug addiction is even more disturbing than in the rest of society, especially as this is related to the process of socialization within the family. Existing literature on the hypothesised relationship between criminal and drug use behaviours, suggests that their association prevails, which leads us to analyse its various meanings (Rodríguez, Paíno, Herrero, & González, 1997). It must be noticed, however, that there is still little research through which this paper addresses issues related to these two behaviours. These are mediated by family socialization processes in the presence of patterns of maltreatment by family members during childhood (Motiuk and Vuong, 2001; Paíno & Revuelta, 2002; Pérez, Gutiérrez, & Rodríguez, 2008; Bringas, Rodríguez, Gutiérrez & Pérez, 2010; Tesson, Hall, Lynsley, and Degenhardt, 2000; Broman, 2009; Pascual, Reig, Fontoba & García del Castillo, 2011; Loeber, Farrington & Redondo, 2011).

In any case, existing research is based on two premises:

1) The drug user is more likely to commit crimes and be a victim of them than the general population, the use of the drug itself being a risk factor in crime (Rodríguez et al., 1997). Three explanatory hypothesis are possible: a) The

first assumes that criminal behaviour is a result of the drug addiction of the individual, so it is their need for the drug that introduces them into the world of crime because of the economic needs arising from such consumption (*drugs cause crime*, being this the basis of the hypothesis known as financial need), however, it must be noted that the crime resulting from drug use should be studied as a function of whether it plays a direct or an indirect role. It is generally accepted that drug addiction contributes to crime in an indirect way, also being affected by other variables. In this scenario, crime would have a functional nature, i.e. the individual would use it to get the needed drug (Ball, Rosen, Flueck and Nurco, 1981; Dobinson & Ward, 1986; Gómez-Hermoso, 2009). Thus, following Elzo, Lidon & Urquijo (1992), three concepts should be pointed out: *induced crime* (those behaviours whose origin is in the poisoning resulting from ingestion of substances), *functional crime* (characteristic of behaviours that are adopted in order to get the drug needed for consumption and that would therefore correspond with crimes directly related to drug use) and *relational crime* (crime related to the distribution and sale of narcotics). b) The second hypothesis suggests a more complex relationship between drugs and crime, according to which many drug users would have shown criminal behaviour prior to their drug addiction, even if they had not been sanctioned. Thus, crimes are not necessarily derived from drug use, or arising out of economic necessity to acquire the drug. Accordingly, this hypothesis could be stated as *crime induces drug consumption*. c) A third explanatory hypothesis indicates an absence of causal

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relationship between drug abuse and crime, with a number of factors involved in both behaviours.

2) The concept of drug use must be taken into account as only one of many elements required in any criminological study which considers not only the environment in which the person lives, but an influential factor related to the law breaking behaviour and imprisonment area itself (Motiuk & Vuong, 2001, Tesson et al., 2000).

Moreover, upon realization that the eradication of drug abuse is very difficult, the real worry lies in the issues arising from the consumption of psychoactive substances at multiple levels (personal, familial, social, community, etc.), as well as the attitudinal influences of social representations of substances and their users (Moral, 2007a, 2007b; Pinazo, Pons & Carreras, 2002). The latter leads the general population to consider drug addiction as a disease. The biomedical perspective is amongst those of reductionist nature, highlighting the spread of certain diseases, most notably AIDS. It is a mistake, very common in this approach, to forget the psychosocial problems underpinning it. This becomes more complex and even more serious within the penitentiary centre, particularly if supported by a problematic family socialization with the presence of maltreatment, which in turn, has implications for the physical and mental health of victims (post-traumatic stress disorder, anxiety, depression, alcohol and other drugs abuse). The relationship between family violence (both against the partner and children) and drug abuse cannot be forgotten, whether the children are direct victims, as occurs in 50% of cases (Calvete, 2008), or witnesses of the violence, which can also seriously damage their emotional development, influencing the emotional and psychosocial adjustment of young people, as the family background is relevant to the formation of attitudes, values and behaviours. Such experiences, of course, may increase the likelihood of consuming drugs even years later.

Likewise, situations of conflict and emotional detachment (as is the lack of harmony characterized by poor parent-child interaction and thus lack of communication or hostility) increase the likelihood of developing maladaptive behaviours such as antisocial and criminal behaviour, especially during adolescence, as well as consumption of alcohol and drugs (Carrasco, Rodríguez & del Barrio, 2001; Hidalgo & Júdez, 2007; Jiménez, Musitu & Murgui, 2005; Rodríguez et al., 1997; Rodríguez, Paíno & Moral, 2007; Santamaría-Herrero & Chait, 2004; Alfonso, Huedo & Espada, 2009; Rodríguez et al., 2011). Maltreatment within the family will be, in turn, strongly mediated by the criminal and addictive backgrounds of the parents, and, to a lesser extent, by a precarious employment status or low educational level, the latter being a particularly important factor in the association between criminal behaviour and psychoactive substance use (Paíno & Revuelta, 2002).

When describing maltreatment within the family, we are referring to a set of situations that hinder proper socialization in children, such as strict supervision and discipline or, on the other hand, excessive flexibility; lack of communica-

tion among the members of the family, poor bonding or attitudes favouring, or derived from substance abuse and various forms of physical and /or psychological maltreatment which parents can have between one another, as well as with their children. Of these, the relationships between mothers and children during the first years of life has been studied most extensively (Sánchez, Guisa, Ortiz & de León, 2002). It can therefore be suggested that the behavioural patterns of individual family members act either as risk or protection factors in the acquisition of behaviours by younger people as well as emotional and psychosocial adjustment that influence either the genesis of substance consumption, or its maintenance in the event that this had already been initiated. The review of studies on family by Becerra (2009) points to the type of interaction and communication established within it, as an influential variable in the drug addict behaviour, indicating more specifically, that aspects such as lack of communication, excessive protection, environment or family conflict are variables that predict the onset of youth psychoactive substance use.

Existing literature on the topic suggests that maltreatment by parents is a risk factor in substance abuse, regardless of the type of substance, as well as in the development of criminal activities of varying severity in children when they reach adulthood, resulting on an earlier first conviction and imprisonment, especially when the mistreatment is physical in nature (Roberts, Lawrence, O'Toole & Raphael, 1997; Lever, 2006, Baldry, 2007, Perez et al., 2008). Similarly, maltreatment affects the starting point of consumption of different drugs, and relates to criminal activity and relapse, and it is necessary to distinguish between various forms of abuse, although the most common are physical and psychological (Pérez, Gutierrez, Rodríguez & Bringas, 2008), as there is a greater relationship between maltreatment and drug abuse when there has been physical violence between parents, from parents to children or between siblings (Sánchez et al., 2002), increasing the likelihood that other family members are also drug users. On the contrary, good relations between parents and children, with presence of affection and support, act as an important protective factor against both drug abuse and criminal behaviours (Rodríguez et al., 2011).

In any case, given there are many variables within the family that are related to substance use, the purpose of this study is to analyse one of the most relevant factors on the acquisition of addictive behaviour. With this purpose, focusing on a population characterized by a high frequency of consumption, we propose a study to establish the variables facilitating or inhibiting the onset of substance abuse in a sample of prison inmates according to the level of maltreatment suffered within the family, taking into consideration the type of inmate and the offence for which they are currently serving time in prison.

Method

Participants

A total of 157 convicted inmates from the Penitentiary of Villabona (Asturias, Spain) aged 19-49 (mean age 30.71 years) participated in the present study. Most of the convicts who formed the sample were men ($N = 149$, 94.9%), whose marital status was predominantly single ($N = 96$, > 61%) with a low number of married participants ($N = 10$; 6.4%). Most of the participants come from large families with three or more children ($N = 92$, almost 60%). Educational level is low, with only 3.8% holding a university degree ($N = 6$), while 35% ($N = 55$) are illiterate or have only primary education, with their primary work activity defined as manual workers, cleaners, labourers or construction workers ($N = 107$, 68.2%). Finally, 56.7% of the sample ($N = 89$) are repeat offenders. The criminal typology for which they were serving a sentence involved crimes against persons ($N = 60$, 38.2%), against property ($N = 53$, 33.8%) and against public health ($N = 40$, 25.5%). Finally, there was a fourth category classified as "other", not included in any of the above categories, with the lowest frequency ($N = 4$, 2.5%). The uniqueness of each of the listed categories is worth noting.

Procedure

The application of the life history and the *ad hoc* questionnaire on maltreatment were carried out individually, guaranteeing confidentiality to the person who, voluntarily, and after signing their agreement, collaborated in the study. The study was conducted with the consent of those responsible for the penitentiary, who also signed their approval. The selection was random within the therapeutic and educational modules within the prison. Offices located in different modules of the Villabona Penitentiary were used as physical spaces to carry out the interviews, each with an average length of one-hour. The interviewer was the same person in all cases.

Variables and Measurement Instruments

The assessment instrument used was the *Life history* (Paino, 1995). This is a personal interview, structured and focused, which provides extensive information on different aspects of the individual's life, aspects related to sociodemographic characteristics, family history, substance use, as well as other information relevant within the prison environment. For this study, only indicators related to the legal and penitentiary situation were used, particularly those related to the inmate state (according to which, subjects can be classified as primary, who only have an entry in prison; or reoffenders, with two or more imprisonments), the type of crime for which they currently serve time in prison, the latter variable consisting of four exclusive categories: Crimes against public health, property crimes, crimes against persons and a fourth category we have classified as other; the use of drugs (Yes,

i.e. use or have used, or No, *i.e.* have never tried it), the age of onset, divided into three groups: Those who started to use drugs at age 11 or before, those who started between 12 and 17, and those who started at or after 18. Likewise, we distinguish different types of psychoactive substances consumed (tobacco, alcohol, cannabis, prescription drugs, cocaine, heroin, amphetamines and designer drugs).

Moreover, an *ad hoc* questionnaire on maltreatment has been developed, in which an attempt has been made to classify the various forms of violence reported by the convict as having been experienced within the family. These refer to physical abuse (punching, biting, strangulation attempts, negligence), psychological (insults, control and power, harassment, emotional blackmail) and sexual (forced to have sex), by each of the parents, siblings and even grandparents, whether sporadic or frequent. Similarly, the questionnaire assesses the violence exerted by the convict on members of the family. For this study, only the violence suffered by the inmate has been taken into account. These violent demonstrations have been grouped into two types and according to the person showing a violent behaviour: physical or psychological violence by the father, mother, and sibling/s (Yes or No)

Data Analysis

Data were analysed using the statistical package SPSS. 15. The explained variables were grouped and a frequency analysis was applied to determine what consumption individuals make of different substances, the age at which they started using each one of them, and the proportion of those who have suffered some form of domestic abuse. Then, taking into account all the ages of first use of each substance, a survival analysis was performed using the Cox regression method, with a 95% confidence interval, allowing us to understand the factors related to family violence that will affect early consumption of substances, both legal and non-socially accepted, as well as those which, on the contrary, could act as inhibiting factors for early consumption, differentiated by the level of recidivism and type of crime.

Results

The results for the abuse suffered within the family and psychoactive substance use are shown in Tables 1 and 2, where, in relation to the consumption of substances, it can be observed that tobacco is the most used drug in our sample population, with 94.3% of our participants consuming it. While we are aware this is a socially accepted drug, it is necessary to highlight the extremely high percentage of those who consume it (almost the whole population), as well as the high percentage of individuals who began their consumption before the age of 12 (30.6%). Both factors are of great concern. The second most consumed substance is cocaine (89.8%). It must be emphasized that it is a prohibited drug and that its consumption is initiated during adoles-

cence, between the ages of 12 and 17 (48.4%). While considerably lower than the above percentages, it should be noted, with concern, that 47.1% of our sample population consumes designer drugs and 44.6% consume amphetamines. It is also noteworthy that the age of first use of all substances is mostly between 12 and 17 years of age (especially alcohol and cannabis). This is different in the case of the onset of heroin use, which in a great proportion of convicts is set at 18 (33.1%).

Table 1. History of consumption and age of onset.

Drug consumption		Age of onset	
Tobacco	Yes	Up to 11	48 (30.6%)
		Between 12 and 17	90 (57.3%)
	No	18 onwards	10 (6.4%)
Alcohol	Yes	Up to 11	12 (7.6%)
		Between 12 and 17	99 (63.1%)
	No	18 onwards	13 (8.3%)
Cannabis	Yes	Up to 11	12 (7.6%)
		Between 12 and 17	108 (68.8%)
	No	18 onwards	11 (7%)
Prescription drugs	Yes	Up to 11	3 (1.9%)
		Between 12 and 17	48 (30.6%)
	No	18 onwards	32 (20.4%)
Cocaine	Yes	Up to 11	3 (1.9%)
		Between 12 and 17	76 (48.4%)
	No	18 onwards	62 (39.5%)
Heroin	Yes	Up to 11	1 (.6%)
		Between 12 and 17	49 (31.2%)
	No	18 onwards	52 (33.1%)
Amphetamine	Yes	Up to 11	0 (0%)
		Between 12 and 17	53 (33.8%)
	No	18 onwards	17 (10.8%)
Designer drugs	Yes	Up to 11	0 (0%)
		Between 12 and 17	44 (28%)
	No	18 onwards	30 (19.1%)

Table 2 shows the results on the analysis of the violence convicts in the sample report to have experienced within their family. It is shown that a large majority of convicts have suffered some form of abuse by a family member. Likewise, it is verified that, from the entire sample, the highest percentage of physical violence suffered by the convicts is that exercised by the father and brothers (49.7% and 47.1% respectively). When compared to psychological violence, this fact allows us to notice that the proportions increase in a remarkable manner for any of the clusters considered, while the father is again the most violent family member (64.3%), followed by siblings (58.6%), and not a

negligible proportion of psychological violence caused by the mother (56.7%).

Table 2. Violence experienced within the inmate's family environment.

Type of violence and family member	Yes	No
Physical violence exercised by the father	78 (49.7%)	70 (44.6%)
	60 (38.2%)	95 (60.5%)
Physical violence exercised by the mother	74 (47.1%)	75 (47.8%)
	101 (64.3%)	47 (29.9%)
Psychological violence exercised by the father	89 (56.7%)	66 (42%)
	92 (58.6%)	57 (36.3%)
Psychological violence exercised by the mother	89 (56.7%)	66 (42%)
	92 (58.6%)	57 (36.3%)
Psychological violence exercised by siblings	92 (58.6%)	57 (36.3%)
	57 (36.3%)	

Table 3 shows, using the Cox regression model, the variable categories showing the existence of maltreatment by family members of the convict, which are related to the risk of early use of drugs within our sample. The results obtained through the forward conditional procedure, confirm that, according to the type of inmate, there are risk factors related to the violence experienced within the families of our sample of prisoners, which have a significant effect on the early use of five substances of the total number we have considered, introducing only one step each. Thus, Tables 4 and 5 show that, in relation to consumption of tobacco, there is a single step establishing the variable "physical violence from the father", being this specific to the primary group. Two factors related to the violence experienced within the family are involved in the early onset of alcohol consumption, each of which has a single step: in the case of the primary subjects, physical violence exercised by the father is the most influential father on the early onset consumption, while in the case of repeat offenders, the psychological violence exercised by the siblings appears more influential. With respect to cocaine, heroin and amphetamines, for which there is also a single step, maternal psychological violence is also present within the group of reoffenders and in all three cases, resulting in statistically significant differences between all of them (obtained weights can be observed in Table 5). With respect to other substances, no correlation was found between them and domestic maltreatment, according to the type of inmate.

In summary, results from our sample of prisoners indicate that, in the case of the primary offenders, tobacco consumption starts at an earlier age in the presence of paternal physical maltreatment. The same goes for alcohol, to which the psychological violence exercised by siblings is added, in the group of inmates who have a high number of imprisonments. Regarding maternal psychological violence, we have obtained significant results in re-offenders as a risk factor in the early use of cocaine, heroin and amphetamines (see Table 5).

Table 3. Classification of categorical variables.

		Substance use	
		Frequency	(1)
Physical violence exercised by the father	.00=No	67	1
	1.00=Yes	73	0
Physical violence exercised by the mother	.00=No	87	1
	1.00=Yes	53	0
Physical violence exercised by siblings	.00=No	69	1
	1.00=Yes	71	0
Psychological violence exercised by the father	.00=No	45	1
	1.00=Yes	95	0
Psychological violence exercised by the mother	.00=No	58	1
	1.00=Yes	82	0
Psychological violence exercised by siblings	.00=No	54	1
	1.00=Yes	86	0

Table 4. Omnibus tests on model coefficients according to the type of inmate.

Type of inmate		Tobacco consumption				
	Step	-2 Log Likelihood	Global			
			χ^2	df	p	
Primary	1	310.986	6.188	1	.013	
	Alcohol consumption					
Primary	Step	-2 Log Likelihood	Global			
	1	296.492	10.308	1	.001	
Recidivist	1	384.104	7.765	1	.005	
	Cocaine consumption					
Recidivist	Step	-2 Log Likelihood	Global			
	1	549.944	9.648	1	.002	
Heroin consumption						
Recidivist	Step	-2 Log Likelihood	Global			
	1	412.894	5.696	1	.017	
Amphetamine consumption						
Recidivist	Step	-2 Log Likelihood	Global			
	1	207.069	4.426	1	.035	

Table 5. Equation variables.

Type of inmate	Tobacco consumption						
Primary	Physical violence by father	β	SE	Wald	df	Sig.	Exp (β)
				-.711	.291	5.968	1
Alcohol consumption							
Primary	Physical violence by father	β	SE	Wald	df	Sig.	Exp (β)
				-.951	.305	9.699	1
Recidivist	Psychological violence by siblings	β	SE	Wald	df	Sig.	Exp (β)
				-.822	.302	7.403	1
Cocaine consumption							
Recidivist	Psychological violence by mother	β	SE	Wald	df	Sig.	Exp (β)
				-.766	.252	9.273	1
Heroin consumption							
Recidivist	Psychological violence by mother	β	SE	Wald	df	Sig.	Exp (β)
				-.671	.286	5.521	1
Amphetamine consumption							
Recidivist	Psychological violence by mother	β	SE	Wald	df	Sig.	Exp (β)
				-.797	.387	4.243	1

Moreover, referring to the type of crime committed, for which the convict is currently in prison, we can see a considerable number of domestic maltreatment factors influencing the risk of early consumption of several substances. In particular, Tables 6 and 7 show the different steps with the variables introduced. In relation to alcohol consumption, in the case of inmates serving sentences for crimes against property, the only significant predictor variable was paternal maltreatment. Regarding the use of cannabis, and for those prisoners penalized for carrying out criminal acts against property, the psychological maltreatment by siblings is the only significant predictor. As for the age of first prescription drugs use; in the group characterised by crimes against public health we found maternal psychological violence to be the only significant predictor. In relation to cocaine and designer drugs, and mainly in participants who have been convicted for crimes against property, a single significant predictor can be observed in each of them, showing that the most influential factor is paternal psychological violence. Finally, it can be observed that, in relation to the consumption of amphetamines, in inmates sentenced for crimes against public health, the single significant predictor is the father's emotional abuse.

Table 6. Omnibus test on model coefficients, according to the type of crime for which the participants are in prison.

Type of current crime	Alcohol consumption				
	Step	-2 Log Likelihood	Global		
			χ^2	df	p
Crimes against property	1	196.120	4.686	1	.030
	Cannabis consumption				
Crimes against property	Step	-2 Log Likelihood	Global		
	1	190.035	4.496	1	.034
Prescription drug consumption					
Crimes against public health	Step	-2 Log Likelihood	Global		
	1	47.544	4.462	1	.035
Cocaine consumption					
Crimes against property	Step	-2 Log Likelihood	Global		
	1	210.230	8.615	1	.003
Amphetamine consumption					
Crimes against public health	Step	-2 Log Likelihood	Global		
	1	78.784	4.913	1	.027
Designer drug consumption					
Crimes against property	Step	-2 Log Likelihood	Global		
	1	83.667	4.236	1	.040

The obtained weights are shown in Table 7. These suggest an earlier use of alcohol, cannabis, prescription drugs, cocaine, amphetamines and designer drugs when there has been some form of maltreatment within the family, depending on the type of crime for which they have been convicted.

Table 7. Equation variables.

Type of current crime	<i>Alcohol consumption</i>					
	Physical violence by father	β	SE	Wald	df	Sig. Exp (β)
Crimes against property		-.783	.370	4.474	1	.034 .457
	<i>Cannabis consumption</i>					
	Psychological violence by sibilings	β	SE	Wald	df	Sig. Exp (β)
Crimes against property		-.773	.372	4.316	1	.038 .462
	<i>Prescription drugs consumption</i>					
	Psychological violence by mother	β	SE	Wald	df	Sig. Exp (β)
Crimes against public health		-1.529	.791	3.742	1	.053 .217
	<i>Cocaine consumption</i>					
	Psychological violence by father	β	SE	Wald	df	Sig. Exp (β)
Crimes against property		-1.152	.409	7.948	1	.005 .316
	<i>Amphetamine consumption</i>					
	Psychological violence by father	β	SE	Wald	df	Sig. Exp (β)
Crimes against public health		-1.340	.649	4.263	1	.039 .262
	<i>Designer drugs consumption</i>					
	Psychological violence by father	β	SE	Wald	df	Sig. Exp (β)
Crimes against property		-1.478	.772	3.671	1	.055 .228

In conclusion, we found that psychological violence exercised by members of the family, acquires a significant weight in predicting the risk of early use of substances. In the case of cocaine, consumption will start earlier when there has been physical violence from the father in those who commit crimes against property. The same occurs with the use of designer drugs. Early use of prescription drugs is influenced by maternal psychological maltreatment, specifically on those inmates characterized by committing crimes against public health. Amphetamine use also occurs at an earlier age if one has had experiences of paternal psychological maltreatment, for those who perform acts against public health, while physical abuse by this family member predicts the early use of alcohol, being the case primarily among those who perform acts against property. On the other hand, psychological violence by a sibling predicts increased risk of early onset in cannabis use. This is, once more, in cases in which participants are currently serving sentence for crimes against property.

Discussion and conclusions

Upon acceptance of the influence of a variety of factors generated within the family during the socialization process in the development of its young members' behaviour, our aim has focused on establishing the impact of violence exerted within the family on the onset of psychoactive substance use in the prisoners in our sample. The results obtained allow us to confirm that virtually all participants from the sample consume some kind of psychoactive substance. We can also establish that its use is initiated during adoles-

cence, coinciding with the presence of behaviours, in their behavioural repertoire, that can be socially reprehensible. These results are, therefore, in line with those obtained by Hidalgo & Júdez (2007), Motiuk & Vuong (2001), Paíno & Revuelta (2002) & Rodríguez et al. (1997).

It has also been shown that the rate of violence suffered by the prisoners in our sample within their own families is, to say the least, worrying, especially regarding self-reported rates of psychological maltreatment. Since our participants are convicts who are serving time in prison, we could hypothesize the existence of a significant relationship between the experienced family environment, and criminal behaviour, as suggested in several studies (Jiménez et al. 2005; Paíno & Revuelta, 2002; Pérez et al. 2008; Rodríguez et al. 1997; Santamaría-Herrero & Chait, 2004). Our data seem to point in this direction.

This behavioural context, in turn, has been associated with the consumption of psychoactive substances, especially alcohol, heroin and cocaine -on the rise over recent years, albeit with differences between time periods- which leads to the need to investigate causes and factors that might influence the increase in their consumption. Also, this work reiterates our interest in the violence experienced within the family, particularly in physical and psychological maltreatment, as these were the most frequently observed types in previous studies (Paíno and Revuelta, 2002; Pérez et al., 2008; Santamaría-Herrero & Chait, 2004). The study considers the most influential persons, who are represented by parents and siblings (Jiménez et al. 2005; Motiuk & Vuong, 2001; Paíno, 1995).

Consequently, studies that relate the existence of maltreatment with drug consumption, insist on a significant presence of psychological violence in the homes of convicts. Here, maternal psychological violence constitutes a risk factor, especially in subjects with repeated sanctions, in an earlier onset of use of prohibited psychoactive substances, which are the ones that have increased their use and abuse the most - heroin and cocaine-, to the point of becoming the primary drug of many of the members of our sample and, probably also of the population of convicts as a whole. Similarly, we have shown that this type of violence, exerted by this family member, influences the use of amphetamines, although this substance is not particularly amongst the most used. This is in line with the results of Sanchez et al. (2002), who give priority to the role played by the mother's relationship with her children in the acquisition of criminal conduct. If we also consider the type of offence for which inmates are currently serving time in prison, drug consumption is also determined by the mother's psychological violence on those who perform acts against public health. Likewise, a high probability of early use of cocaine, amphetamines and designer drugs is also shown by those who have received this type of paternal maltreatment, especially those that act against property in the case of cocaine and designer drugs, and those acting against the public health in the case of amphetamines. With regard to alcohol consumption, its

onset is mainly influenced by paternal physical violence, mainly in primary participants, who, in addition, commit crimes against property, which again is consistent with our data that relate physical abuse with substance use behaviours. The existence of a stronger association between parental violence and substance use, compared with violence from siblings, could be interpreted from the importance that the subjects themselves give the parent-child bonding.

However, although our results are in line with studies by other authors who point out that poor bonding in the family where the subjects develop relationships of abuse impact the conduct of criminal behaviour and drug use (Carrasco et al. 2001; Paíno & Revuelta, 2002; Santamaria-Herrero & Chait, 2004), some of the differences ought to be highlighted, as referring to the type of inmate and crime. Therefore, depending on recidivism, we note that for all substances considered in the study, for five of them -four being of the highest consumption levels- there is a single risk factor related to family violence, referring, as previously stated, to paternal physical in the case of tobacco and alcohol consumption (the latter also emphasizes psychological abuse suffered from siblings), and maternal psychological violence in the case of consumption of psychoactive substances, cocaine, heroin and amphetamines. If we consider the type of offense for which they have been convicted, cannabis, prescription drugs and designer drug are also of importance. Therefore, although we can establish an association between the criminal conduct of prisoners within our sample and drug use, without thereby assuming a causal relationship, we cannot ensure that such consumption is due exclusively to the abuse experienced within the family which, in our study, is largely psychological.

In this way, and to better understand the relationship between crime and drug use, our study points to the need to know various aspects of both socialization and family interaction, such as relationships between the parents themselves,

the existence of criminal records within the family and/or style of communication. Consideration should thus be given to the entire set of family socialization factors which, in a very complex manner, interact, enabling or hampering the acquisition and development of antisocial or socially accepted behaviours. These, in turn, are directly or indirectly associated with drug use, thus knowledge of all factors would facilitate the establishment of prevention programs. Similarly, it is necessary to establish the importance of the use and abuse of psychoactive substances by the parents themselves, which could also explain the behaviour of abuse by facilitating, in turn, the onset of consumption of psychoactive substances by their children and the development of antisocial behaviour, which would enable the development and maintenance of criminal conducts, in line with the results obtained by Paíno & Revuelta (2002).

In conclusion, while our data confirm the results of other research linking violence within the family and drug use with criminal behaviour (Baldry, 2007; Becerra, 2009; Paíno, 1995; Paíno & Revuelta, 2002; Rodríguez et al. 1997), it is also true that they are not conclusive as to assert the connection abuse-psychoactive substances. Our data suggest that there is a complex web of interrelationships that is necessary to unravel, which is to be expected in complex and multi-causal problems. Hence the need to advance understanding of the impact of other variables, both from the family and the individual, that could influence the pattern of consumption of psychoactive substances and its relationship both with abuse suffered within the family and with the later development of maladjusted criminal behaviour, which are shown here as prospective lines of analysis, prevention and intervention.

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