

Psychological, physical and sexual abuse in addicted patients who undergo
treatment

Short title: Life time abuse and addictions

Javier Fernández-Montalvo (1)

José J. López-Goñi (1)

Alfonso Arteaga (1)

(1) Departamento de Psicología y Pedagogía

Universidad Pública de Navarra

Campus de Arrosadía s/n

31006 Pamplona (Spain)

Corresponding author:

Javier Fernandez-Montalvo

Departamento de Psicología y Pedagogía

Universidad Pública de Navarra

Campus de Arrosadía s/n

31006 Pamplona (Spain)

E-mail: fernandez.montalvo@unavarra.es

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ABSTRACT

This study explored the prevalence of a history as victims of abuse among patients who sought outpatient treatment for drug addiction. A sample of 252 addicted patients was assessed. Information was collected on the patients' lifetime history of abuse (psychological, physical and/or sexual abuse), socio-demographic factors, consumption factors, psychopathological factors and personality variables. Drug-addicted patients who present a lifelong history of abuse were compared with patients who were not abused. Of the total sample, 46% of the patients ($n = 115$) who were addicted to drugs had been victims of abuse. There was a statistically significant difference between the victimisation rates of men (37.8%) and women (79.6%). Moreover, for some variables, significant differences were observed between patients who had been abused and those who had not. Compared with patients who had not been abused, the addicted patients with a history of victimisation scored significantly higher on several *EuropASI*, *MCMI-II* and maladjustment variables but not on the *SCL-90-R*. The current results indicate that patients who present a lifelong history of abuse exhibit both a more severe addiction than patients who were not abused and several comorbidities. The implications of these results for further research and clinical practice are discussed.

Keywords: drug addiction, lifetime abuse, assessment, comorbidity.

INTRODUCTION

Previous research aimed at assessing the presence of violent behaviour among addicted patients in treatment (Fernández-Montalvo, López-Goñi & Arteaga, 2012) noted that a very high proportion of the patients studied had a history as victims of abuse throughout their lives. This abuse was psychological, physical or sexual in nature. The presence of a prior history as a victim of abuse is relatively common among addicted patients in treatment (Sacks, McKendrick & Banks, 2008; Schneider, Cronkite & Timko, 2008). Some studies have shown that a significant percentage of addicted patients who seek consultation for treatment of their addiction have a history of victimisation. For example, in a study by Schneider et al. (2008) with a sample of 215 addicted men, 46% of the men presented with a history of childhood abuse. This same victimisation rate was reported in the aforementioned study by Fernández-Montalvo et al. (2012), in which 46% of the 252 addicts studied had been victims of some type of abuse during their lives.

Some authors have noted gender differences in the rates of abuse reported. When addicted women who seek treatment are studied, the prevalence of abuse rises to over 60% (Liebschutz et al., 2002; Min, Farkas, Minnes & Singer, 2007; Sacks et al., 2008). These figures exceed the abuse rates presented in the non-drug-addicted population in recent years (between 26% and 30%; Kendler et al., 2000; MacMillan et al., 2001). These elevated rates of victimisation are distressing because abuse experiences are an important risk factor for the development of emotional and behavioural problems (Anda et al., 2006; Asgeirsdottir, Sigfusdottir, Gudjonsson & Sigurdsson, 2011). Substance abuse is prevalent among these problems (Nelson et al., 2006) in addition to other problems such as depression (Kendler, Kuhn & Prescott, 2004; Turner, Finkelhor & Ormrod, 2006) and suicidal ideation (Crowell et al., 2008;

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Gladstone et al., 2004). Numerous studies have indicated that experiences with abuse are an important risk factor for the development of an addiction, particularly among women (Becker & Grillo, 2006; Breslau, Davis & Schultz, 2003; Danielson et al., 2009; Lansford, Dodge, Pettit & Bates, 2010; Rosekranz, Henderson, Muller & Goodman, 2011; Widom, White, Czaja & Marmorstein, 2007; Wilson & Widom, 2009; Wu, Schairer, Dellor & Grella, 2010).

Some authors have established a relationship between childhood abuse, the development of violent behaviour and addictive behaviour (Burnette et al., 2008). In particular, although violent behaviour is common in addicted patients, research suggests that this behaviour is more common among patients with histories of physical and sexual abuse. A study conducted by Fernández-Montalvo et al. (2012) found that a history of abuse was significantly more frequent among those patients who developed violent behaviours that were associated with addiction. These violent patients reported that they could not control violent impulses in different settings whether with family, friends or drug abuse partners. Moreover, in some cases, violence emerged in crime settings to obtain money for buying drugs (e.g., pick-pocketing, shoplifting, robbery, drug dealing, etc.).

Researchers have begun to study the influence of a history of abuse on the degree of consumption at the beginning of treatment and on the subsequent treatment trajectory. The results obtained thus far are inconclusive. However, some studies have shown greater consumption at the beginning of treatment (Clark, Masson, Delucchi, Hall & Sees, 2001) and higher rates of relapse during treatment (Farley, Golding, Young, Mulligan & Minkoff, 2004) among patients who present a lifelong history of abuse. These results are referred to the consumption of any kind of substance.

Three possible explanations have been proposed regarding the association between substance abuse and lifetime abuse (Kingston & Raghavan, 2009). According to the first explanation, some cases of lifetime abuse lead to the development of post-traumatic stress disorder. In these cases, substance abuse may serve as a form of self-medication to alleviate the post-traumatic symptoms (Epstein, Saunders, Kilpatrick & Resnick, 1998). According to the second explanation, substance abuse can increase the risk of victimisation or other traumatic events, and these experiences may lead to the development of post-traumatic stress disorder (Howard & Qi Wang, 2003). According to the third explanation, the phenomena of abuse and addiction may both occur in the context of an abnormal family environment (Widom, 1999). Anyway, beyond any of these three explanations, the presence of a history of abuse could interfere with the treatment completion (Fernández-Montalvo et al., 2012).

Because of the high rates of victimisation history among the addicted population, treatment programs should consider offering integrated intervention programs aimed at treating both substance abuse and the symptoms caused by a history of abuse, especially depression, anxiety, post-traumatic stress and suicidal ideation. Some recent integrated programs have shown encouraging results (Brady, Dansky, Back, Foa & Carroll, 2001; Cook, Walser, Kane, Ruzek & Woody, 2006; Najavits, Weiss, Shaw & Muenz, 1998). The development of such programs requires detailed knowledge of the patients' profiles. This knowledge enables treatment programs to adapt to the specific characteristics of the patients. However, whereas many studies have found a relationship between mistreatment and sexual abuse in childhood and the development of an addiction in adulthood, very few studies have analysed the specific profile of addicted patients who presented with a history of abuse.

Therefore, this study explored the analysis of a history of abuse performed in a previous study (Fernández-Montalvo et al., 2012) and further examined the prevalence and characteristics of a history of abuse in a sample of addicted patients who sought treatment. The main objectives of this study were to evaluate the specific features of addicted patients who presented with a history of abuse, to distinguish between the profiles of those patients who did and those who did not present with a history of abuse and to determine the relationship between a history of abuse and completing treatment.

METHOD

The protocol for this study was approved by the ethics committees of the Public University of Navarra and of the Fundación Proyecto Hombre de Navarra.

Participants

The initial sample consisted of 314 consecutive addicted patients who sought outpatient treatment at the *Proyecto Hombre* Addiction Treatment Programme in Pamplona, Spain, from October 2008 to July 2010.

The current study's admission criteria were that the patients had to: a) meet the diagnostic criteria of alcohol and/or substance dependence according to the *DSM-IV-TR* (American Psychiatric Association, 2000); b) be between 18 and 65 years old; c) give their informed consent to participate in the study; and d) complete the three assessment sessions.

Sixty-two (19.8%) of the 314 initial subjects did not meet the criteria mentioned above. Therefore, the final sample was composed by 252 subjects. The mean age of the individuals included in the study was 37.6 years ($SD=9.5$); the sample included 203 (80.6%) men and 49 (19.4%) women. The socioeconomic level was middle to lower-middle class. The main substances that motivated treatment were cocaine (49.6% of the sample) and alcohol (43.3% of the sample), followed by other substances (e.g., heroin, cannabis, amphetamine, etc.) in smaller numbers (7.1% of the sample).

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Assessment measures

The *EuropAsi* (Kokkevi & Hartgers, 1995) is the European version of the *Addiction Severity Index (ASI)* (McLellan, Luborsky, Woody & O'Brien, 1980). This interview assesses the need for treatment in the following six areas: a) general medical state; b) labour and economic situation; c) drug consumption (alcohol included); d) legal problems; e) family and social relationships; and f) psychiatric state. In this study the Interviewer's Severity Rates (ISR) were used, due to their tested utility in clinical settings (López-Goñi, Fernández-Montalvo & Arteaga, 2012). These severity scores range from 0 (no problem) to 9 (extreme problem) in each area, and the cut-off point for each area is 4. The Spanish version of the *EuropAsi* was used in this study (Bobes, González, Sáiz & Bousoño, 1996). Moreover, some items of the EuropASI were used to obtain information about the presence of psychopathological problems in the sample (Psychiatric scale: items 2-4; 6, 7, 9, 10), as well as the level of adjustment in different areas: family and social relationships (Family and social scale: items 10b-18b) and labor situation (Employment support scale: item 8).

The *Symptom Checklist-90-Revised (SCL-90-R)* (Derogatis, 1992) (Spanish version by González de Rivera, 2002) is a self-administered general psychopathological assessment questionnaire. It consists of 90 questions that are answered on a 5-point Likert-type scale, ranging from 0 (*none*) to 4 (*very much*). The questionnaire aims to assess the respondent's psychiatric symptoms. The *SCL-90-R* has been shown to be sensitive to therapeutic change, and thus may be used for either single or repeated assessments. The *SCL-90-R* measures nine areas of primary symptoms: somatisation, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. It also provides three indices that reflect the subject's overall level of severity.

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The *Millon Clinical Multiaxial Inventory (MCMI-II)* (Millon, 1997) is a self-report questionnaire with 175 true/false items. It was designed to identify clinical states and personality disorders that are similar to those contained in the *DSM-IV-TR*. The *MCMI-II* contains eight basic personality scales: 1) Schizoid-asocial; 2) Avoidant; 3) Dependent-submissive; 4) Histrionic-gregarious; 5) Narcissistic; 6) Antisocial-aggressive; 7) Compulsive-conforming; and 8) Passive-aggressive. In addition to the basic personality patterns, there are three pathological personality scales: Schizotypal (S), Borderline (B) and Paranoid (P). The nine symptom scales of the *MCMI-II* were not taken into account in this study as they are not relevant to the purposes of this research. According to the conservative criteria of Weltzer (1990) regarding the *MCMI-II*, a base rate score above 84 for the personality scales is considered to be significant for the existence of a personality disorder.

Procedure

Once the clinical sample was selected using the previously described criteria, the assessment of the sample was carried out in three sessions before beginning the treatment by clinical psychologists who had ten or more years of experience in treating addictions and in applying the assessment tools used in this study. Each session took place once a week for three weeks; the time interval between sessions was the same for each participant. In the first session, data related to socio-demographic characteristics and drug consumption were collected using the *EuropAsi*. In the second session, the presence of psychopathological symptoms was assessed using the *SCL-90-R*. Finally, in the third session, the prevalence of personality disorders was assessed using the *MCMI-II*.

For the assessment of both the global prevalence and the characteristics of the abuse, the three specific items of the *EuropASI* were used. Each of these assesses one

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type of abuse: psychological, physical and sexual abuse. According to the EuropASI codifications (Bobes et al., 1996), these items evaluate lifetime abuse, combining childhood abuse and abuse in adulthood.

After the assessment sessions, patients began the standard treatment of *Proyecto Hombre* for addiction. Outpatient treatment at this programme consists of a cognitive-behavioural intervention aimed at abstinence from substances. The treatment lasts an average of 9 months with a subsequent follow-up period of 12 months.

Data analysis

Descriptive analyses were conducted for all variables. Bivariate analyses were employed using χ^2 or t-test statistics, depending on the nature of the variables studied, in order to know the differential profiles of patients with and without abuse. Moreover, once the differences were observed, some logistic regression analyses (forward method) were carried out in order to know the role of the different types of abuse suffered by the sample. These analyses used the following models: 1) socio-demographic and consumption; 2) severity of addiction; and 3) clinical variables. A difference of $p < .05$ was considered significant. Statistical analyses were carried out using SPSS (version 15.0 for Windows).

RESULTS

Prevalence of lifetime abuse in addicts who undergo treatment

According to the European Addiction Severity Index (EuropASI) assault items, 46% of the addicts ($n = 115$) from the current sample had been victims of some type of abuse over the course of their lifetime. The prevalence was significantly higher for women than for men: 79.6% of the female patients had been victims of abuse compared with 37.8% of the male patients (see Table 1).

PLACE TABLE 1 HERE

A more detailed analysis of the type of abuse experienced by the patients revealed that a large proportion of the patients had experienced psychological abuse (e.g., insults, humiliations, shouting, threats). Psychological abuse affected 42.8% of the patients in the sample (71.4% of the women and 35.6% of the men), and 93.1% (107 addicts) of those patients who presented a lifelong history of abuse ($n = 115$) had been victims of psychological abuse. A statistically significant gender difference was found for this category of abuse. Physical abuse was the second most frequent type of abuse reported. This type of abuse affected 18% of the patients in the sample (53.1% of the women and 9.5% of the men). A statistically significant gender difference was found for physical abuse. Finally, sexual abuse affected 9.2% of the patients in the sample. A statistically significant gender difference was found for sexual abuse (32.7% of the women and 3.5% of the men).

Comparison of addicted patients with and without a history of abuse

a) Socio-demographic variables and drug use

A comparison of socio-demographic variables between addicted patients who presented a history of abuse and patients who were not abused showed that gender was the only statistically significant difference between the groups. In particular, 66.1% of abuse victims were men compared with 33.9% of the women ($X^2 = 27.7$; $p < .001$; $df = 1$). However, the analysis of addicted patients who were not abused revealed that the vast majority of these cases were men (92.6%), and only a few (7.4%) were women. Anyway, the samples were uneven based on men and women, with many more men in the sample.

In terms of the consumption variables, no differences were observed between patients who presented a history of abuse and patients who did not present a history of

abuse in either the type of substance that led the patients to seek treatment or the rate of polyconsumption. The number of people who had received prior treatment for an addiction problem was higher among the abuse victims (60.9% vs. 49.6%), although there were no statistically significant differences observed between the abused and non-abused groups.

The main differences between groups were found in the rate of withdrawal from treatment, which was significantly higher among addicted patients with a prior history of abuse (Table 2). The EuropASI scores showed significant differences between the groups with regard to addiction severity. Addicted patients who presented a history of abuse scored significantly higher than patients who were not abused on the EuropASI scales related to employment, family and social support and psychiatric problems. Higher scores indicated a greater need for treatment.

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b) Psychopathological and personality variables

Patient scores on the Symptom Checklist-90-Revised (SCL-90-R) indicated a moderate to high level of psychopathological symptoms in the study sample (see Table 2). The scores for the entire sample were at approximately the 60th percentile for all inventory dimensions and for the three indices of general severity. However, there were no significant differences between the individuals who presented a history of abuse and those who did not present a history of abuse.

With respect to personality traits (Table 2), patient scores on the Millon Clinical Multiaxial Inventory-II (MCMI-II) revealed significant differences between the two groups of patients for four personality scales. Specifically, addicted patients who presented a history of abuse scored significantly higher on the antisocial personality disorder, passive-aggressive personality and borderline scales, whereas individuals who

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had never been abused scored significantly higher on the compulsive personality disorder scale.

Overall, 46.8% of the patients in the total sample ($n = 118$) exhibited at least one personality disorder. However, the two groups did not differ in the overall rate of personality disorders. There were significant differences between the two groups for only one disorder. Patients who presented a history of abuse exhibited a significantly higher rate ($X^2 = 4.6$; $p < .05$; $df = 1$) of histrionic personality disorder (5.2%) than patients who had not been abused (0.7%).

c) Maladjustment variables

Table 3 presents the results of the comparison between patient groups for several maladjustment variables. All of the patients exhibited high rates of maladjustment in different areas, with significant differences between the two groups. Patients with a prior history of abuse exhibited more problems in most of the maladjustment variables than patients who had not been abused.

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Differences related to the type of victimisation

Once the differences were observed between both groups studied, some logistic regression analyses were carried out in order to know the role of the different types of abuse suffered by the sample. In this sense, the more statistically significant results were obtained when the abused sample was divided between those who had suffered only psychological abuse and those who had suffered physical and/or sexual abuse (Table 4). According to this categorization, results from logistic regression analysis showed that model 1 (related to sociodemographic and consumption variables) was the model that explained a higher percentage of the variance (adjusted $R^2 = .273$). Specifically, the

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only variable introduced by the model was sex. This variable correctly classified 73.9% of cases. Among abused patients, women showed a higher probability of being a victim of physical and/or sexual abuse, and men showed a higher probability of being a victim of psychological abuse.

On the other hand, model 2 (related to severity of addiction) correctly classified 72.5% of the cases and model 3 (related to clinical variables) correctly classified 67% of the cases.

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DISCUSSION

The results from this study showed a high prevalence of a history as victims of abuse among addicted patients who underwent treatment. In particular, 46% of the patients in the current sample had experienced some type of abuse in their lives, primarily psychological abuse, followed by physical abuse and sexual abuse. These figures are very much higher than those found (about 5%) in the general population in Spain (Centro Reina Sofía para el Estudio de la Violencia, 2011). Remarkably, a significant number of patients who presented with a prior history of abuse had been victims of more than one type of abuse. Being subjected to different types of abuse is relatively common among these types of patients; the current study was not the first to find this result in the abuse histories of addicted patients. For example, a study by Sacks et al. (2008) found that 69% of the women who also presented with addiction problems reported some form of childhood abuse. Similar results have been found in other recent studies (Sacks et al., 2008; Scheneider, 2008), with high rates of abuse in addicted patients. The clinical assessment of the comorbidity between addiction and a history of

abuse must therefore include a detailed analysis of the different types of abuse that patients may experience.

In terms of the varying victim profiles, there were clear gender-specific differences. Gender was the only socio-demographic variable that displayed a significant difference. Although the prevalence of abuse was high in both genders, the prevalence in women was significantly higher than that in men. This gender difference was observed in both the general prevalence and in the relative prevalence of each type of abuse. The gender difference observed in the current study supports results from previous studies that indicate that a history as a victim of abuse is more common among addicted women than in addicted men (Becker & Grillo, 2006; Breslau et al., 2003; Sacks et al., 2008). However, the inclusion of a lower number of addicted women in the current sample may have disguised the impact of certain forms of abuse that are more frequently found in women, particularly sexual abuse (Simpson & Miller, 2002).

The data relating to gender differences are currently inconclusive. Some recent studies have shown that the experience of a traumatic event increased the risk of developing a substance addiction among both men and women (Danielson et al., 2009). Other studies have indicated that childhood sexual and physical abuse were more common among addicted women than men (Burnette et al., 2008; Wilson & Widom, 2009), whereas the development of violent behaviour was more common among addicted men than women (Chermack, Stoltenberg, Fuller & Blow, 2000; Fernández-Montalvo, López-Goñi & Arteaga, 2011; Fernández-Montalvo et al., 2012). Therefore, studies that examine similar samples of men and women are needed to more accurately assess the specific impact of gender on the relationship between addiction and a history of abuse.

With regard to addiction-related variables, the results from previous studies are inconclusive about whether patients who present a lifelong history of abuse show greater or lesser severity of addiction when they come to consultation. Some studies have indicated that the consumption severity may be related to the presence of a history of abuse (Clark et al., 2001; Danielson et al., 2009; Easton, Swan & Sinha, 2000). The results from the current study showed significant differences between addicted patients who presented with a history of abuse and those who were not abused in some variables that relate to addiction severity (evaluated through the EuropASI). In particular, patients who presented with a history of abuse showed an increased need for treatment along the family/social, psychiatric state and employment situation scales. Previous studies have shown that these areas are directly related to the problem of consumption (Lopez-Goñi et al., 2010). However, there is no difference in the need for treatment for alcohol and illegal drug consumption in either medical or legal drug-use contexts. No differences were observed in other variables that are related to the severity of addiction, such as the consumption of multiple drugs, the existence of previous treatments for drug abuse and the substance that motivated the patient to seek treatment.

Significant differences were observed in the rate of treatment dropout, which was more frequent among patients who presented a history of abuse. These results support those obtained in previous studies regarding treatment dropout (Claus & Kindleberger, 2002), and a history of abuse is one of a group of variables related to treatment dropout that have been described in recent years (Fernández-Montalvo & López-Goñi, 2010; López-Goñi, Fernández-Montalvo, Illescas, Landa & Lorea, 2008). The current results contradict the results from studies of addicted youth who have suffered childhood abuse, some of whom showed a greater adherence to therapy (Rosekranz et al., 2011; Slesnick, Kang & Aukward, 2008).

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The psychopathological variables measured by the SCL-90-R did not show significant differences between the two groups. All of the patients from the sample showed a strong presence of psychopathological symptoms (at approximately the 60th percentile). These symptoms appear to be related to the consequences of the addiction itself and not to the experience of abuse. Nevertheless, the literature shows a greater presence of depression and post-traumatic symptoms, primarily post-traumatic stress disorder, among addicted patients who present with a history of abuse (Danielson et al., 2009; Schneider et al., 2008). These symptoms have not specifically been assessed in this study and will be taken into account in future studies of addicted patients.

With regard to personality disorders, only one significant difference was observed between the two groups. Patients who present a lifelong history of abuse were more likely to exhibit histrionic disorder. However, this disorder only affects 6 patients in our study; therefore, it is very risky to generalise any conclusions. From a quantitative perspective, addicted patients with a lifelong history of abuse scored significantly higher than patients without a history of abuse on the scales associated with violent behaviour, including the passive-aggressive, antisocial and borderline scales. This finding validates results found in previous studies that related violent behaviours to situations of abuse (Burnette et al., 2008; Chermack et al., 2000; Fernández-Montalvo et al., 2012). However, more studies on this subject are needed to generalise these results.

Important differences were found between the groups for the variables related to the degree of adaptation to everyday life. Maladjustment was observed more frequently in patients who present a history of abuse than in patients who were not abused. These adaptation problems were observed in most of the studied areas, including family, social and psychological areas. This difference in adaptation therefore reflects the greater

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seriousness and greater degree of impact associated with addictive behaviour on the lives of addicted people who present with a history of abuse.

The present study has a number of limitations. First, the exploratory and descriptive nature of this study means that the specific causal role that lifetime abuse plays in the development of addictive behaviours remains unknown. The configuration of the sample itself is another issue that should be taken into account. Because few women were included in the sample, the results obtained can mainly be generalised to male-addicted patients. It is true that almost all studies about drug dependence include largely male samples, but it should nevertheless be taken into account when generalising the obtained results. Moreover, this may have underestimated the impact of forms of maltreatment more frequently reported by females, particularly sexual abuse (Simpson & Miller, 2002). Third, the assessment of the sample was carried out in three sessions, each of which took place once a week. Hence, the final sample may be biased because all clients had to attend three consecutive measurements during a three-week period. The patients who dropped out before all of the measurements were completed were not included in the study. This methodological problem might influence the findings and must be considered in further research. Lastly, this study does not distinguish between those who have experienced childhood abuse or abuse in adulthood. It would be interesting for future studies to consider the differences according to the time of life that abuse occurred.

Future research about this field should take into account the limitations noted previously. Moreover, it would be interesting to conduct follow-up studies regarding the predictive validity of lifetime history of abuse with respect to the completion of an entire treatment program and/or to the relapses. Finally, knowing the specific

characteristics of this type of abused patients will allow to implement individually-tailored strategies in order to increase retention in intervention programmes.

In summary, the present study investigated the prevalence rate of lifetime abuse in drug-addicted patients as well as the differential profiles of patients with and without victimization problems. This study forms part of a wider research base that is focused on understanding factors related to violence, crime and addictions. From a clinical perspective, this is an important goal because violence interferes with the course of the therapeutic evolution of addicted patients.

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Table 1. The victimisation profile of drug-addicted patients

	All (N = 252) <i>n</i> (%)	Men (n = 203) <i>n</i> (%)	Women (n = 49) <i>n</i> (%)	X^2	<i>df</i>
Lifetime abuse	115 (46.0%)	76 (37.8%)	39 (79.6%)	27.7*	1
Only psychological abuse ¹	64 (25.6%)	55 (27.1%)	9 (18.4%)		
Psychological + physical abuse ¹	24 (9.6%)	10 (4.9%)	14 (28.6%)		
Psychological + physical + sexual abuse ¹	16 (6.4%)	5 (2.5%)	11 (22.4%)		
Only physical abuse ¹	4 (1.6%)	4 (1.9%)	0		
Only sexual abuse ¹	4 (1.6%)	1 (0.5%)	3 (6.1%)		
Psychological + sexual abuse ¹	2 (0.8%)	1 (0.5%)	1 (2%)		
Physical + sexual abuse ¹	1 (0.4%)	0	1 (2%)		
Psychological abuse²	107 (42.8%)	72 (35.6%)	35 (71.4%)	20.7*	1
Physical abuse²	45 (18.0%)	19 (9.5%)	26 (53.1%)	50.8*	1
Sexual abuse²	23 (9.2%)	7 (3.5%)	16 (32.7%)	40.4*	1

¹ The value of X^2 was not calculated because the number of cells with expected values under 20 is greater than 20%.

²The total number of people who had been abused is greater than the total sum of abuse cases because there are patients who presented with more than one type of victimisation.

* $p < .001$

Table 2. Comparisons in clinical variables

	All	Lifetime abuse		X^2 (<i>df</i>)
	(N = 250)	Yes (n = 115)	No (n = 135)	
	n (%)	n (%)	n (%)	
Dropouts	98 (39.2%)	56 (48.7%)	42 (31.1%)	8.1** (1)
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i> (<i>df</i>)
EuropASI (ISR)				
Medical	2.0 (1.4)	2.1 (1.4)	1.9 (1.4)	1.3 (248)
Employment/Support	2.4 (1.7)	2.7 (1.8)	2.1 (1.5)	2.9** (227.2)
Alcohol use	3.9 (2.0)	4.0 (2.0)	3.8 (2.0)	1.0 (248)
Drugs use	3.4 (2.1)	3.5 (2.2)	3.3 (2.0)	0.6 (247)
Legal	1.8 (1.5)	1.7 (1.4)	1.8 (1.5)	1.0 (248)
Family/Social	3.7 (1.7)	4.4 (1.6)	3.1 (1.5)	6.5*** (247)
Psychiatric	3.2 (1.7)	3.6 (1.8)	2.9 (1.6)	3.4** (248)
SCL-90-R (percentiles)				
GSI	64.6 (33.0)	63.8 (33.8)	64.4 (32.4)	0.2 (248)
PSDI	46.6 (31.7)	45.5 (33.7)	47.2 (30.1)	0.4 (230.9)
PST	69.0 (31.6)	68.4 (32.1)	69.0 (31.4)	0.2 (248)
Somatisation	57.8 (32.2)	54.3 (32.6)	60.3 (31.7)	1.5 (248)
Obsessive-compulsive	61.9 (32.8)	60.0 (33.0)	62.9 (32.6)	0.7 (248)
Interpersonal sensitivity	63.1 (33.3)	62.4 (34.3)	63.2 (32.6)	0.2 (248)
Depression	60.2 (33.1)	61.3 (32.7)	58.7 (33.5)	0.6 (248)
Anxiety	57.1 (33.7)	56.6 (34.6)	56.9 (32.9)	0.1 (248)
Hostility	52.5 (33.2)	51.4 (33.4)	52.9 (33.1)	0.4 (248)
Phobic anxiety	52.2 (36.8)	53.3 (36.4)	50.6 (37.1)	0.6 (248)
Paranoid ideation	61.8 (33.0)	63.5 (32.9)	59.9 (33.2)	0.8 (248)
Psychoticism	68.2 (33.0)	67.9 (32.9)	69.0 (33.2)	0.1 (248)
MCMI-II				
Schizoid	58.1 (27.8)	56.4 (23.0)	59.3 (31.3)	0.0 (248)
Phobic	49.3 (27.9)	52.4 (28.2)	46.3 (27.3)	1.7 (248)
Dependence	59.9 (24.2)	57.5 (24.0)	61.5 (24.3)	1.3 (248)
Histrionic	54.2 (20.2)	55.5 (21.1)	53.3 (19.3)	0.8 (248)
Narcissistic	50.7 (23.6)	52.8 (22.6)	49.3 (24.4)	1.2 (248)
Antisocial	53.2 (23.4)	56.8 (23.1)	50.1 (23.5)	2.3* (248)
Aggressive-sadistic	52.5 (22.7)	54.8 (21.9)	50.6 (23.4)	1.5 (248)
Compulsive	54.2 (21.0)	50.1 (22.8)	57.5 (18.9)	2.8** (221.6)
Passive-aggressive	45.3 (30.5)	51.1 (29.9)	40.0 (30.4)	2.9** (248)
Self-destructive	48.0 (24.2)	49.9 (25.3)	46.1 (23.2)	1.2 (248)
Schizotypal	41.8 (23.3)	44.1 (23.1)	39.4 (23.2)	1.6 (248)
Borderline	39.5 (25.9)	44.2 (24.5)	35.3 (26.5)	2.8** (246.4)
Paranoid	56.0 (16.7)	56.1 (16.1)	55.8 (17.2)	0.1 (248)

* $p < .05$; ** $p < .01$; *** $p < .001$

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Table 3. Comparisons in maladjustment variables

		All		Lifetime abuse		X^2
	<i>N</i>	<i>N</i> (%)	Yes (<i>n</i> = 115) <i>n</i> (%)	No (<i>n</i> = 135) <i>n</i> (%)		
Family maladjustment						
	Mother	247	75 (30.4%)	42 (37.2%)	33 (24.6%)	4.6*
	Father	239	86 (36.0%)	50 (45.9%)	36 (27.7%)	8.5**
Problems with	Sibling	239	78 (32.6%)	46 (41.1%)	32 (25.2%)	6.8**
	Partner	237	146 (61.6%)	85 (76.6%)	61 (48.4%)	19.8***
	Son/daughter	120	15 (12.5%)	10 (18.2%)	5 (7.7%)	3.0
Social maladjustment						
	Intimate friends	242	63 (26.0%)	42 (38.2%)	21 (15.9%)	15.5***
Problems with	Neighbours	247	31 (12.6%)	18 (15.8%)	13 (9.8%)	2.0
	Work colleagues	247	71 (28.7%)	40 (35.4%)	31 (23.1%)	4.5*
Labour maladjustment						
	Without permanent job during the last 3 years	252	38 (15.1%)	22 (19.1%)	16 (11.9%)	2.6
Psychological maladjustment						
	Depressive problems	250	130 (52.0%)	77 (67.0%)	53 (39.3%)	19.1***
	Anxiety problems	250	152 (60.8%)	83 (72.2%)	69 (51.1%)	11.6**
	Violence problems	250	99 (39.6%)	60 (52.2%)	39 (28.9%)	14.1***
	Suicide ideation	250	99 (39.6%)	56 (48.8%)	43 (31.8%)	7.4**
	Suicide attempt	247	40 (16.2%)	24 (21.3%)	16 (11.9%)	3.9*

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 4. Multivariate analysis

Logistic Regression (Dep. var = Type of abuse; 0 = Only Psychological; 1 = Physical and/or sexual)												
Final model	Model 1: Sociodemographic and consumption				Model 2: Severity of addiction				Model 3: Clinical variables			
	Var.	OR	95% CI	Correctly classified	Var.	OR	95% CI	Correctly classified	Var.	OR	95% CI	Correctly classified
	Sex (Men)	0.11***	(0.05, 0.28)	73.9%	ISR Family	1.62**	(1.37, 2.44)	72.5%	Self-destructive	1.03**	(1.01, 1.04)	67.0%
	Constant	3.33**			ISR Psychiatric	1.33*	(1.02, 1.73)		Constant	0.22**		
Adjusted R ²	.273				Constant	0.03***						.113

ISR = Interviewer Severity Ratings

* $p < .05$; ** $p < .01$; *** $p < .001$