Perfil criminológico en pacientes adictos en tratamiento

Criminological profile of patients in addiction treatment

JAVIER FERNÁNDEZ-MONTALVO; JOSÉ J. LÓPEZ-GOÑI; ALFONSO ARTEAGA; RAÚL CACHO

Departamento de Psicología y Pedagogía. Universidad Pública de Navarra. Pamplona. Spain

Enviar correspondencia a: Javier Fernández-Montalvo Departamento de Psicología y Pedagogía. Universidad Pública de Navarra Campus de Arrosadía s/n. 31006 Pamplona (Spain)

Phone: +34 948 169830. Fax: +34 948 16 98 91. E-mail: fernandez.montalvo@unavarra.es

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Resumen

En este estudio se lleva a cabo un análisis de la prevalencia de conductas delictivas en pacientes adictos en tratamiento. Para ello se cuenta con una muestra de 252 pacientes adictos (203 hombres y 49 mujeres) que acudieron en busca de tratamiento ambulatorio a un centro especializado. En la evaluación se recogió información sobre las conductas delictivas, las características sociodemográficas, las variables de consumo (evaluadas con el EuropASI), la sintomatología psicopatológica (evaluada con el SCL-90-R) y las variables de personalidad (evaluada con el MCMI-II). Los pacientes que presentaban conductas delictivas fueron comparados con los que no las presentaban en todas las variables estudiadas. La tasa de pacientes adictos implicados en actos delictivos fue del 60,3% (n = 150). Las conductas delictivas se relacionaban principalmente con delitos de conducción, seguido por delitos de tráfico de drogas. Se observaron diferencias significativas entre los pacientes con y sin conductas delictivas. Los pacientes con actos delictivos eran principalmente hombres y solteros. Además, era más probable que presentaran policonsumo de sustancias. Asimismo, se observaron diferencias significativas en varias variables del EuropASI, SCL-90-R y MCMI-II. Con arreglo a estos resultados, los pacientes con conductas delictivas asociadas presentaban una mayor gravedad en su adicción. Se discuten las implicaciones de estos resultados para la práctica clínica y la investigación futura.

Palabras clave: drogadicción; delito; evaluación; comorbilidad; tratamiento ambulatorio.

Abstract

This study explores the prevalence of criminal behaviour in patients addicted to drugs who are in treatment. A sample of 252 addicted patients (203 male and 49 female) who sought outpatient treatment at a specialized centre was assessed. Information on criminal behaviours, socio-demographic factors, consumption factors (assessed by the EuropAsi), psychopathological factors (assessed by SCL-90-R) and personality variables (assessed by MCMI-II) was collected. Patients presenting criminal behaviour were compared with those who were not associated with crime for all the variables studied. The rate of drug-addicted patients with criminal behaviour in this sample was 60.3% (n = 150), and it was mainly related to traffic offenses, followed by drug dealing offenses. Significant differences were observed between patients with and without criminal behaviour. Patients with criminal problems were mostly men and single. Moreover, they were more likely to report polyconsumption. Furthermore, significant differences were observed on several variables: EuropAsi, SCL-90-R and MCMI-II. According to these results, patients with associated criminal behaviour presented a more severe addiction problem. The implications of these findings for clinical practice and future research are discussed.

Keywords: drug addiction; crime; assessment; comorbidity; outpatient treatment.

rug dependence is a multidimensional problem that affects all facets of life. Physical and mental health, family and social relationships, and employment are severely altered during the course of addiction (Ana et al., 2008; Carroll & Rounsaville, 2002). Addicts may also engage in violent behaviour and criminal activity (Fernández-Montalvo, López-Goñi, & Arteaga, 2011, 2012). A number of studies have found that, among prisoners worldwide, 18-30% of men and 10-24% of women suffer from alcohol abuse or dependence and 10-48% of men and 30-60% of women abuse or are dependent on other drugs (Fazel, Bains, & Doll, 2006).

Although studies to date have confirmed a strong relationship between criminal conduct and substance abuse (Bennett & Holloway, 2005; Coid, Carvell, Kittler, Healey, & Henderson, 2000; Felson & Staff, 2010; Menard, Mihalic & Huizinga, 2001; Roca & Caixal, 1999; Sanford & Arrigo, 2005; Santamaría & Chait, 2004), the causal direction of the relationship has not been identified (Boles & Miotto, 2003; Kuhns & Clodfelter, 2009). Addiction can lead to criminal behaviour because many addicts commit crimes to finance their habits and avoid withdrawal symptoms (Bennett & Holloway, 2005). However, for some addicts, criminal activity precedes drug consumption, and the substance use occurs within the context of a criminal lifestyle and antisocial behaviour (Bennett & Holloway, 2005). For example, Santamaria and Chait (2004) studied a sample of 88 incarcerated addicts and found that most had been intoxicated when they committed the crimes for which they were imprisoned. However, the researchers also observed common factors in the genesis of both drug addiction and criminal behaviour in most cases that made it impossible to claim that drug addiction had led to the crime.

Moreover, although many studies have investigated substance abuse in prison populations (Fazel et al., 2006; Santamaría & Chait, 2004), very few studies have assessed individuals with criminal convictions who participated in drug treatment programmes. This dearth of studies is surprising because estimates find that 38.1% of patients treated in community drug treatment programmes and 26.2% of patients treated in residential programmes engaged in criminal behaviour in the year prior to entry (Gossop, Trakan, Stewart, & Witton, 2005). Some studies have addressed the issue of criminal behaviour in addicts. For example, a recent study that compared the profiles of patients treated in a penitentiary treatment unit and in a therapeutic community highlighted the greater severity of the addictions in the incarcerated patients (Casares-López et al., 2010). Issues related to the legal status of patients have also often been addressed in research evaluating different treatment programmes (Fernández-Montalvo & López-Goñi, 2010; Fernández-Montalvo, López-Goñi, Illescas, Landa, & Lorea, 2008), in follow-up patient studies (Gossop et al., 2005), and in research to identify different categories of patients (Grana, Muñoz, & Navas, 2009). All of these studies showed the existence of a narrow relationship between drug addiction and criminal behaviour.

However, little is known regarding the specific profile of addicted individuals with criminal conduct issues or the extent to which these individuals differ from other addicts without these issues. Knowing the characteristics of the former group (socio-demographic variables, psychopathological symptoms, personality traits, etc.) is critical to adapting existing treatment programmes to these patients' particular problems, as it has been shown in previous studies about differential profiles in addicted patients (Graña et al., 2009; Fernández-Montalvo & López-Goñi, 2010; Fernández-Montalvo et al., 2012). Thus, this study examined the prevalence of criminal behaviour in a sample of addicts who sought treatment in an outpatient programme. The main objectives of this study were to identify the distinct characteristics of the addicts with problems related to criminal behaviour and to determine the specific profiles that differentiate patients with and without crime-related legal problems. The main hypothesis was that patients with criminal behaviours would present a more severe addiction.

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 (as they came to the centre) who sought outpatient treatment at the *Proyecto Hombre* Addiction Treatment Programme in Pamplona, Spain, from October 2008 to July 2010. This is a cognitive-behavioural intervention on an outpatient basis, aimed at abstinence. The main therapeutic techniques are related to stimulus control and *in vivo* exposure, as well as relapse prevention. Successful programme completion typically requires around 12 months, and it is achieved when a patient completes all therapeutic sessions.

The current study's admission criteria were that the patients had to: a) meet the diagnostic criteria of 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.

From the 314 initial subjects, 62 (19.8%) 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).

Assessment measures

The EuropASI (Kokkevi & Hartgers, 1995) is the European version of the Addiction Severity Index (ASI) (McLellan, Luborsky, Woody, & O'Brien, 1980). This semi-structured

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. Severity scores range from 0 (no problem) to 9 (extreme problem) in each area, and the cut-off point to determine the need for treatment in each area is 4. These areas are directly related to the problem of consumption (Lopez-Goñi et al., 2010). In this study the items of the legal scale were used to obtain specific information about the presence of legal problems. The Spanish version of the EuropASI was used in this study (Bobes, González, Sáiz, & Bousoño, 1996).

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. The internal consistency ranges from .70 to .90.

The Millon Clinical Multiaxial Inventory (MCMI-II) (Millon, 1997; Spanish version of Millon and Avila, 1998) is a selfreport 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 ten basic personality scales: 1) Schizoid, 2) Phobic, 3) Dependent, 4) Histrionic, 5) Narcissistic, 6) Antisocial, 7) Aggressive/sadistic, 8) Compulsive, 9) Passive-aggressive, and 10) Self-destructive. 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 our 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. The internal consistency ranges from .66 to .89.

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. 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. After the assessment sessions, patients began the standard treatment of Proyecto Hombre for addiction.

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. A difference of p < .05 was considered significant. Statistical analyses were carried out using SPSS (version 15.0 for Windows).

Results

Criminological profiles of addicts in treatment

In the sample, 60.3% of the addicts (n=150) had been charged with a crime. The number was significantly higher for men than for women; 66.5% of the male patients had been accused of a crime compared to 30.6% of the female patients (see Table 1).

A more detailed analysis of the type of crime revealed that most were related to driving under the influence of alcohol (e.g., reckless driving, speeding, etc.). Of the total sample, 42.9% of the patients (48.8% of the men and 18.4% of the women) as well as 72% of those with a criminal history had been charged with a crime of this type, and the gender differences found for this category of crime were statistically significant. Possession and trafficking of drugs, which was the second most frequent type of crime, involved 19.8% of the sample (23.6% of the men and 4.1% of the women) and also showed significant gender differences. Less common crimes included crimes against property, disorderly conduct, or offences such as tax evasion or non-payment of pension to the ex-partner or children. In addition, 9.1% of the total sample had previously served a prison sentence, 22% were awaiting trial, and 7.9% had previously been convicted of a crime and were on probation.

Comparisons of addicted patients with and without criminal behaviour

Sociodemographic variables and drug use. Patients who had committed crimes differed significantly from those who had not with respect to sociodemographic variables (see Table 2). In particular, 90% of the patients who had engaged in criminal behaviour were male, while only 66.7% of the patients without legal problems were male. In addition, the patients who had engaged in criminal behaviour were more likely to be single and less educated.

There were no differences between patients who had legal problems and those who did not in the type of substance abuse that led to seeking treatment (table 2). However, the group with legal problems exhibited a significantly higher rate of polydrug use compared to those who had not engaged in criminal behaviour. Similarly, the number of individuals who

Table 1
Criminological characteristics of addicted patients

	All (N = 252)	Men (n = 203)	Women (n = 49)		
	n (%)	n (%)	n (%)	χ^2	df
Charged with a crime	150 (60.3%)	135 (66.5%)	15 (30.6%)	21.1**	1
Driving-related	108 (42.9%)	99 (48.8%)	9 (18.4%)	14.9**	1
Drug possession and trafficking	50 (19.8%)	48 (23.6%)	2 (4.1%)	9.5*	1
Crimes against property	23 (9.1%)	19 (9.4%)	4 (8.2%)	0.1	1
Disorderly conduct	12 (4.8%)	12 (5.9%)	0	3	1
Other crimes (e.g., tax evasion, pension non-payment)	27 (10.7%)	25 (12.3%)	2 (4.1%)	2.8	1
Convicted of a crime	37 (14.7%)	33 (16.3%)	4 (8.2%)	2.1	1
Incarcerated for a crime	23 (9.1%)	22 (10.8%)	1 (2.0%)	3.7	1
Awaiting trial for a crime	56 (22%)	52 (25.6%)	4 (8.2%)	6.9*	1
On probation after criminal conviction	20 (7.9%)	19 (9.4%)	1 (2.0%)	2.9	1

^{*}p < .01; **p < .001

had received prior treatment for addiction was significantly higher in the group of patients who had engaged in criminal behaviour. Although the percentage of patients who had overdosed was higher in the group of patients who had problems related to criminal behaviour, this difference was not statistically significant.

The scores on the European Addiction Severity Index (EuropASI) revealed significant differences between the groups with regard to the severity of addiction (Table 3). Addicted patients who had legal problems had significantly higher scores than individuals without legal problems and a greater need for treatment in the areas of drug use, legal issues, and family and social support.

Psychopathological and personality variables. Patient scores on the Symptom Checklist-90-Revised (SCL-90-R) indicate a moderate to high level of psychopathological symptoms in the study sample (see Table 3). The scores for the entire sample were in approximately the 60 percentile for all inventory dimensions and the three indices of general severity. However, there were no significant differences between the individuals who had problems associated with criminal behaviour and those who did not.

With respect to personality traits, patient scores on the Millon Clinical Multiaxial Inventory-II (MCMI-II) revealed the existence of significant differences in the two groups of patients for the four personality scales (table 3). Specifically, addicted patients with problems related to criminal behaviour scored significantly higher on the antisocial personality disorder scale, while individuals who had never been charged with a crime scored significantly higher on the phobic, dependent, and self-destructive personality disorder scales.

Regarding personality disorders, 46.8% of the patients (*n* = 118) exhibited at least one personality disorder (see Table 4). However, the groups with and without crime-related problems did not differ in the overall rate of personality disorders. The dependent and passive-aggressive personality disorders, which

were the most prevalent, affected 11.5% and 11.1% of patients in the sample, respectively. There were significant differences between the two groups for two disorders. Patients charged with a crime exhibited a significantly higher rate of narcissistic personality disorder, while those who had never been charged with a crime exhibited a higher rate of dependent personality disorder.

Maladjustment variables. Table 5 presents the results of the comparison between patient groups for several maladjustment variables. All of the patients exhibited high rates of problems with different family members, with no significant differences between the two groups. For the social maladjustment variables, however, patients with crime-related problems exhibited more problems with close friends and co-workers.

It is worth noting that 46% of the patients in the sample had experienced psychological, physical or sexual abuse, but there were no significant differences between the patient groups in this respect (table 5).

Discussion

The results of the study reveal that criminal behaviour was common in addicted patients and that 60.3% of the study sample had been charged with a crime at one time or another. Most of the crimes were related to driving while intoxicated, with drug possession and trafficking being the second most frequent type of crime. Both of these types of crimes were either due to drug consumption and occurred during intoxication (in the case of the driving-related offences) or a means of managing the costs of consumption (in the case of drug trafficking). The results of the present study would suggest that the strong connection between crime and addiction might be related to the behavioural effects of consumption, the urgent need to obtain money to maintain drug consumption, and behaviour related to the illegal market

Table 2
Comparisons in socio-demographic and drug abuse characteristics

		AII N = 252		With crime (n = 150)		Without crime (n = 102)	
	Mean	(SD)	Mean	(SD)	Mean	(SD)	t (df)
Mean age	37.6	(9.5)	36.7	(9.3)	38.8	(9.7)	1.8 (250)
		AII = 252)		n crime = 150)		ut crime = 102)	
	N	(%)	n	(%)	п	(%)	X² (df)
Sex							
Men	203	(80.6%)	135	(90.0%)	68	(66.7%)	04.4*** (4)
Women	49	(19.4%)	15	(10.0%)	34	(33.3%)	21.1*** (1)
Marital Status ¹							
Single	122	(48.4%)	83	(55.3%)	39	(38.2%)	
Married	76	(30.2%)	38	(25.3%)	38	(37.3%)	7.3* (2)
Divorced	50	(19.8%)	28	(18.4%)	22	(21.6%)	7.3 (2)
Widower	4	(1.6%)	1	(0.7%)	3	(2.9%)	
Education							
None	28	(11.2%)	22	(14.8%)	6	(5.9%)	
Primary school	135	(53.8%)	86	(57.7%)	49	(48.0%)	15.2** (3)
Secondary school	62	(24.7%)	33	(22.1%)	29	(28.4%)	13.2 (3)
University	26	(10.4%)	8	(5.4%)	18	(17.6%)	
Employment situation							
Employed	166	(65.9%)	95	(63.3%)	71	(69.6%)	
Unemployed	68	(27.0%)	47	(31.0%)	21	(20.6%)	4.7 (2)
Others (student, retired, etc.)	18	(7.1%)	8	(5.3%)	10	(9.8%)	
Substance that motivated treatment							
Alcohol	109	(43.3%)	60	(40.0%)	49	(48.0%)	
Cocaine	125	(49.6%)	78	(52.0%)	47	(46.1%)	1.7 (2)
Others (heroin, cannabis)	18	(7.1%)	12	(8.0%)	6	(5.9%)	
Poly-consumption	64	(25.4%)	45	(29.6%)	19	(18.6%)	3.9* (1)
Drug overdose	29	(11.5%)	22	(14.7%)	7	(6.9%)	3.6 (1)
Previous treatments for addiction	138	(54.8%)	92	(61.3%)	46	(45.1%)	6.5* (1)

 $^{^{1}}$ In the X^{2} analysis of Marital Status, the categories "Divorced" and "Widower" have been joined.

for drugs. These findings are consistent with the results obtained in previous studies (Coid et al., 2000). Anyway, this hypothesis needs future research.

Regardless of the causal direction of the relationship, the high number of legal problems associated with addiction found in this study highlights the need to improve procedures for collecting information on the legal status of patients with addictions. The EuropASI data provide a global measure of the patient's legal issues but produce only limited information. Moreover, the legal scales of the ASI and the EuropASI were the least reliable instrument scales, with regard to both the Interviewer Severity Indices and the instrument's composite

scores (López-Goñi, Fernández-Montalvo, & Arteaga, 2012). Therefore, test protocols designed to assess legal problems in patients with addictions should be improved.

The present study found that there were significant gender differences in the extent of crime-related legal problems, with criminal behaviour being twice as common in men as in women. This finding is consistent with other studies investigating gender issues, which have claimed that men and women exhibit fundamentally different addiction profiles (Lee, 2007; Tournier et al., 2005). There might be gender differences in the underlying reasons for and consequences of addiction. Although the differences found in this study are striking,

^{*}p < .01; ***p < .01; ***p < .001

Table 3
Comparisons in clinical variables

	AII (N = 252)	With crime (n = 150)	Without crime (n = 102)		
	N (%)	n (%)	n (%)	X ²	(df)
Dropouts	98 (38.9%)	64 (42.7%)	34 (33.3%)	2.2	 1
	M (SD)	M (SD)	M (SD)	t	(df)
EuropASI					
Medical	2.0 (1.4)	2.0 (1.3)	2.0 (1.4)	0.4	(250)
Employment/Support	2.4 (1.7)	2.4 (1.6)	2.3 (1.7)	0.4	(250)
Alcohol use	3.9 (2.0)	3.9 (2.0)	3.9 (2.0)	0.2	(250)
Drugs use	3.4 (2.1)	3.7 (2.1)	2.9 (2.0)	2.9**	(249)
Legal	1.8 (1.5)	2.3 (1.6)	1.0 (0.7)	8.5***	(218.8)
Family/Social	3.7 (1.7)	3.9 (1.7)	3.4 (1.7)	2.0*	(249)
Psychiatric	3.2 (1.7)	3.3 (1.8)	3.1 (1.7)	1.0	(250)
SCL-90-R (percentiles)					
GSI	64.6 (33.0)	65.2 (33.8)	63.7 (31.9)	0.3	(250)
PSDI	46.6 (31.7)	48.0 (31.1)	44.6 (32.7)	0.8	(250)
PST	69.0 (31.6)	68.7 (32.9)	69.4 (29.8)	0.2	(250)
Somatisation	57.8 (32.2)	58.8 (32.4)	56.4 (32.1)	0.6	(250)
Obsessive-compulsive	61.9 (32.8)	63.3 (34.2)	59.7 (33.2)	0.8	(250)
Interpersonal sensitivity	63.1 (33.3)	62.8 (34.2)	63.7 (62.8)	0.2	(250)
Depression	60.2 (33.1)	61.7 (33.4)	58.0 (32.7)	0.9	(250)
Anxiety	57.1 (33.7)	57.3 (34.7)	56.8 (32.4)	0.1	(250)
Hostility	52.5 (33.2)	53.8 (32.9)	50.5 (33.7)	0.8	(250)
Phobic anxiety	52.2 (36.8)	52.7 (37.3)	51.5 (36.2)	0.2	(250)
Paranoid ideation	61.8 (33.0)	63.8 (32.8)	58.8 (33.1)	1.2	(250)
Psychoticism	68.2 (33.0)	68.4 (33.9)	67.8 (31.8)	0.1	(250)
MCMI-II					
Schizoid	58.1 (27.8)	58.4 (30.0)	57.7 (24.4)	0.2	(250)
Phobic	49.3 (27.9)	44.9 (28.5)	55.9 (25.8)	3.1**	(250)
Dependence	59.9 (24.2)	56.9 (24.4)	64.1 (23.3)	2.3*	(250)
Histrionic	54.2 (20.2)	54.9 (20.6)	53.1 (19.7)	0.7	(250)
Narcissistic	50.7 (23.6)	51.9 (24.4)	49.0 (22.5)	1.0	(250)
Antisocial	53.2 (23.4)	55.6 (24.2)	49.7 (21.9)	2.0*	(250)
Aggressive–sadistic	52.5 (22.7)	53.4 (22.7)	51.1 (22.8)	0.8	(250)
Compulsive	54.2 (21.0)	52.4 (21.3)	56.8 (20.4)	1.6	(250)
Passive–aggressive	45.3 (30.5)	45.5 (30.6)	44.9 (30.6)	0.2	(250)
Self-destructive	48.0 (24.2)	45.3 (24.3)	52.1 (23.6)	2.2*	(250)
Schizotypal	41.8 (23.3)	40.7 (25.4)	43.4 (19.8)	0.9	(250)
Borderline	39.5 (25.9)	39.6 (27.3)	39.4 (23.9)	0.1	(250))
Paranoid	56.0 (16.7)	56.1 (17.6)	56.0 (15.3)	0.0	(250)

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

Table 4 Comparison in the rate of personality disorders

	All	With crime	Without crime	,
	(N = 252)	(n = 150)	(n = 102)	
MCMI-II	N (%)	n (%)	n (%)	$X^2 (df = 1)$
Schizoid	23 (9.1%)	14 (9.3%)	9 (8.8%)	.1
Phobic	19 (7.5%)	9 (6.0%)	10 (9.8%)	1.3
Dependence	29 (11.5%)	10 (6.7%)	19 (18.6%)	8.5**
Histrionic	7 (2.8%)	5 (3.3%)	2 (2.0%)	.4
Narcissistic	17 (6.7%)	14 (9.3%)	3 (2.9%)	3.9*
Antisocial	18 (7.1%)	13 (8.7%)	5 (4.9%)	1.3
Aggressive–sadistic	21 (8.3%)	13 (8.7%)	8 (7.8%)	.1
Compulsive	18 (7.1%)	9 (6.0%)	9 (8.8%)	.7
Passive-aggressive	28 (11.1%)	20 (13.3%)	8 (7.8%)	1.8
Self-destructive	12 (4.8%)	6 (4.0%)	6 (5.9%)	.5
Schizotypal	6 (2.4%)	5 (3.3%)	1 (1.0%)	1.5
Borderline	6 (2.4%)	5 (3.3%)	1 (1.0%)	1.5
Paranoid	6 (2.4%)	4 (2.7%)	2 (2.0%)	1.3
TOTAL ¹	118 (46.8%)	68 (45.3%)	50 (49%)	.3

^{*}p < .05; **p < .01; ***p < .001

Table 5
Comparison in maladjustment variables

	Comparison in malaujustinent variables					
			AII (N = 252)	With crime (n = 150)	Without crime (n = 102)	
		N	N (%)	n (%)	n (%)	$X^2 \left(df = 1 \right)$
Family maladjust	ment					
	Mother	249	75 (30.1%)	47 (31.8%)	28 (27.7%)	.5
	Father	242	86 (35.7%)	56 (38.6%)	30 (31.3%)	1.4
	Brothers/Sisters	241	79 (32.8%)	50 (35.2%)	29 (29.3%)	.9
Problems with	Sexual partner	239	146 (61.1%)	91 (64.5%)	55 (56.1%)	1.7
	Son/Daughters	120	15 (12.5%)	7 (11.1%)	8 (14%)	.2
Social maladjustr	ment					
	Intimate friends	243	63 (25.9%)	45 (31.3%)	18 (18.2%)	5.2*
Problems with	Neighbours	248	31 (12.5%)	19 (12.8%)	12 (12.0%)	.0
	Work colleagues	249	71 (28.6%)	52 (35.12%)	19 (19.0%)	7.6**
Labour maladjust	ment					
Without permaner	nt job during the last 3 years	252	38 (15.1%)	21 (14.0%)	17 (16.68%)	.3
Victim of abuse		250	115 (46%)	68 (45.3%)	47 (47.0%)	.1
	Psychological	251	107 (42.6%)	64 (42.7%)	43 (42.6%)	.0
Type of abuse	Physical	250	45 (18.0%)	27 (18.0%)	18 (18.0%)	.0
/1	Sexual	251	23 (9.2%)	10 (6.7%)	13 (12.9%)	2.8

^{*}p < .05; ***p < .01; ****p < .001

The total number of people affected by personality disorders is inferior to the total sum of disorders because there are patients who present more than one personality disorder.

they are restricted to the area of criminal conduct and were obtained in a sample that included few women. Nevertheless, the study findings suggest a fruitful topic for future research.

From a demographic perspective, the study found that significantly more patients with legal problems were single and that marriage was significantly more common in patients without legal problems. This finding suggests that the presence of legal problems might be related to difficulties in family life. This is an interesting topic for future studies.

Moreover, an important finding of this study was that addicted patients with legal problems exhibited significantly more polydrug use than patients without legal problems did. These results are consistent with those of other studies (Bennett & Holloway, 2005; Best, Sidwell, Gossop, Harris, & Strang, 2001) and suggest a promising topic for future research. The extant research on the association between addiction and criminal behaviour has focused primarily on the analysis of the association of specific drugs with certain crimes, such as studies on the relationship between heroin use and crime (Coid et al., 2000). However, there is little research that analyses the relationship between multiple substance abuse and criminal conduct. When this type of research has been developed, the most plausible conclusion appears to be that illegal behavior is influenced by substance use, particularly illicit substance use, and that substance use, particularly serious illicit drug use, is influenced by illegal behavior (Menard et al., 2001).

The comparison between the two groups, as it was hypothesized, also revealed that patients with legal problems had more severe addictions. The EuropASI scores, which measure addiction severity, were significantly higher for the scales related to drug use, legal issues, and family and social problems. These results confirm the findings of previous studies that compared addicted patients with and without violence-related problems (Fernández-Montalvo et al., 2012).

From a psychopathological perspective, however, the SCL-90-R found no differences between groups in the symptoms associated with addiction, although some personality scales of the MCMI-II revealed differences. As expected, addicted patients with crime-related legal problems scored higher on the antisocial personality scale, which agrees with the specific profile of this group and is consistent with other research on the relationship of personality disorders to addictive behaviours (Fernández-Montalvo, Landa, López-Goni, & Lorea, 2006; Fernández-Montalvo, Lorea, López-Goñi, Landa, & Zarzuela, 2003). Patients without crime-related legal problems had higher scores on the phobic, dependent and self-destructive personality scales. The personality profile of this group was distinct from the anti-social profile of patients with legal problems.

An important and disturbing result of the present study is the high number of individuals (46% of the sample) who were abuse victims. A previous study (Fernández-Montalvo et al., 2012) found that addicted patients who exhibited violent behaviours were significantly more likely to have histories of abuse. Although there were no significant differences in the history of abuse in patients with and without crime-related

problems in this study, many patients in the sample as a whole had experienced abuse. This finding is consistent with other studies of addicts, which have found that over 50% of addicts have histories of abuse (Chermack, Walton, Fuller, & Blow, 2001; Finlinson et al., 2003; Marshall, Fairbairn, Li, Wood, & Kerr, 2008). Further research is needed to investigate this phenomenon and confirm these results.

The present study has a number of limitations. First, the exploratory and descriptive nature of this study means that the specific causal role that substances play in the development of criminal 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, the sample consisted mainly of people dependent on alcohol and cocaine, so it should be careful when generalizing the results to people dependent on other substances. 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.

In summary, the present study investigated the prevalence rate of criminal behaviours in drug-addicted patients as well as the differential profiles of patients with and without criminal problems. This study forms part of a wider research base that is focused on understanding factors related to 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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Conflicts of interest

The authors do not have any financial interests that may be interpreted as influencing the research.

References

- Ana, E. J. S., Martino, S., Ball, S. A., Nich, C., Frankforter, T. L., & Carroll, K. M. (2008). What is usual about "treatment-as-usual"? Data from two multisite effectiveness trials. *Journal of Substance Abuse Treatment*, *35*, 369-379. Doi 10.1016/j.jsat.2008.01.003
- Bennett, T., & Holloway, K. (2005). The association between multiple drug misuse and crime. *International Journal of Offender Therapy and Comparative Criminology*, 49, 63-81. Doi 10.1177/0306624X04269003
- Best, D., Sidwell, C., Gossop, M., Harris, J., & Strang, J. (2001). Crime and expenditure amongst polydrug misusers seeking treatment. *British Journal of Criminology*, 41, 119–126. Doi 10.1093/bjc/41.1.119
- Bobes, J., González, M. P., Sáiz, P. A., & Bousoño, M. (1996). Índice europeo de severidad de la adicción: EuropASI. Versión española. Paper presented at the Actas de la IV Reunión Interregional de Psiguiatría.
- Boles, S. M., & Miotto, K. (2003). Substance abuse and violence: A review of the literature. *Aggression and Violent Behavior*, *8*, 155–174. Doi 10.1016/S1359-1789(01)00057-X
- Carroll, K. M., & Rounsaville, B. J. (2002). On beyond urine: clinically useful assesment instruments in the treatment of drug dependence. Behaviour Research and Therapy, 40, 1329-1344. Doi 10.1016/S0005-7967(02)00038-4
- Casares-López, M. J., González-Menéndez, A., Torres-Lobo, M., Secades-Villa, R., Fernández-Hermida, J. R., & Álvarez, M. M. (2010). Comparación del perfil psicopatológico y adictivo de dos muestras de adictos en tratamiento: en prisión y en comunidad terapéutica. *International Journal of Clinical and Health Psychology, 10*, 225-243.
- Chermack, S. T., Walton, M. A., Fuller, B. E., & Blow, F. C. (2001). Correlates of expressed and received violence across relationship types among men and women substance abusers. *Psychology of Addictive Behaviors*, *15*, 140–151. Doi 10.1037/0893-164X.15.2.140
- Coid, J., Carvell, A., Kittler, Z., Healey, A., & Henderson, J. (2000). *Opiates, criminal behaviour, and methadone treatment.* London: Home Office.
- Derogatis, L. R. (1992). *The SCL-90-R*. Baltimore: Clinical Psychometric Research.
- Fazel, S., Bains, P., & Doll, H. (2006). Substance abuse and dependence in prisoners: a systematic review. *Addiction*, *101*, 181–191. Doi 10.1111/j.1360-0443.2006.01316.x
- Felson, R. B., & Staff, J. (2010). The effects of alcohol intoxication on violent versus other offending. *Criminal Justice and Behavior, 37*, 1343–1360. Doi 10.1177/0093854810382003
- Fernandez-Montalvo, J., Landa, N., Lopez-Goni, J., & Lorea, I. (2006). Personality disorders in alcoholics: A comparative pilot study between the IPDE and the MCMI-II. *Addictive Behaviors*, *31*, 1442-1448. Doi 10.1016/j.addbeh.2005.09.014
- Fernández-Montalvo, J., Lorea, I., López-Goñi, J. J., Landa, N., & Zarzuela, A. (2003). Trastornos de personalidad en adictos a la cocaína: un estudio-piloto. *Análisis y Modificación de Conducta, 29*, 79-98.

- Fernández-Montalvo, J., & López-Goñi, J. J. (2010). Comparison of completers and dropouts in psychological treatment for cocaine addiction. *Addiction Research & Theory, 18*, 433-441. Doi 10.3109/16066350903324826
- Fernández-Montalvo, J., López-Goñi, J. J. & Arteaga, A. (2011). Tratamiento de agresores contra la pareja en programas de atención a drogodependientes: un reto de futuro. *Adicciones*, *23*, 5-9.
- Fernández-Montalvo, J., López-Goñi, J. J., & Arteaga, A. (2012). Violent behaviours in drug addiction: Differential profiles of drug-addicted patients with and without violence problems. *Journal of Interpersonal Violence*, *27*, 142-157. Doi 10.1177/0886260511416475
- Fernández-Montalvo, J., López-Goñi, J. J., Illescas, C., Landa, N., & Lorea, I. (2008). Evaluation of a therapeutic community treatment program: A long-term follow-up study in Spain. *Substance Use & Misuse*, *43*, 1362–1377. Doi 10.1080/10826080801922231
- Finlinson, H. A., Oliver-Vélez, D., Deren, S., Cant, J. G. H., Colón, H. M., Robles, R. R., & Andía, J. (2003). Puerto Rican drug users' experiences of physical and sexual abuse: Comparison based on sexual identities. *Violence Against Women*, *9*, 839-858. Doi 10.1177/1077801203009007005
- González de Rivera, J. L. (2002). *Versión española del SCL-90-R*. Madrid: TEA Ediciones.
- Gossop, M., Trakada, K., Stewart, D., & Witton, J. (2005). Reductions in criminal convictions after addiction treatment: 5-year follow-up. *Drug and Alcohol Dependence*, *79*, 295-302. Doi 10.1016/j. drugalcdep.2005.01.023
- Graña, J. L., Muñoz, J. J., & Navas, E. (2009). Normal and pathological personality characteristics in subtypes of drug addicts undergoing treatment. *Personality and Individual Differences*, *46*, 418-423. Doi 10.1016/j.paid.2008.11.011
- Kokkevi, A., & Hartgers, C. (1995). EuropASI: European adaptation of a multidimensional assessment instrument for drug and alcohol dependence. European Addiction Research, 1, 208-210. Doi 10.1159/000259089
- Kuhns, J. B., & Clodfelter, T. A. (2009). Illicit drug-related psychopharmacological violence: The current understanding within a causal context. *Aggression and Violent Behavior*, 14, 69-78. Doi 10.1016/j.avb.2008.11.001
- Lee, C. (2007). Sex-gender differences in drug abuse: A shift in the burden of proof? *Experimental and Clinical Psychopharmachology,* 15, 411-417. Doi 10.1037/1064-1297.15.5.411
- López-Goñi, J. J., Fernández-Montalvo, J., & Arteaga, A. (2012). Predictive validity of the EuropAsi: Clinical diagnosis or composite scoring? *Journal of Substance Abuse Treatment, 42*, 392–396. Doi 10.1016/j. jsat.2011.09.011
- Lopez-Goñi, J., Fernandez-Montalvo, J., Menendez, J., Yudego, F., Garcia, A., & Esarte, S. (2010). Group and individual change in the treatment of drug addictions: A follow-up study in therapeutic communities. *The Spanish Journal of Psychology, 13*, 906-913.
- Marshall, B. D. L., Fairbairn, N., Li, K., Wood, E., & Kerr, T. (2008). Physical violence among a prospective cohort of injection drug users: A

- gender-focused approach. *Drug and Alcohol Dependence*, *97*, 237-246. Doi 10.1016/j.drugalcdep.2008.03.028
- McLellan, A. T., Luborsky, L., Woody, G. E., & O'Brien, C. P. (1980). An improved diagnostic evaluation instrument for substance abuse patients: The Addiction Severity Index. *The Journal of Nervous and Mental Disease*, *168*, 26-33.
- Menard, S. W., Mihalic, S. F. & Huizinga, D. (2001). Drugs and crime revisited. *Academy of Criminal Justice Science*, *18*, 269–299.
- Millon, T. (1997). *Millon Clinical Multiaxial Inventory- II (MCMI II)*. Minneapolis: National Computer Systems.
- Millon, T. & Ávila, A. (1998). Inventario Clínico Multiaxial de Millon (MCMI-II). Madrid: TEA Ediciones.
- Roca, X. & Caixal, G. (1999). Conducta aditiva y delictiva: análisis de una relación. *Trastornos Adictivos*, *1*, 222-226.
- Sanford, J. S., & Arrigo, B. A. (2005). Lifting the cover on drug courts: Evaluation findings and policy concerns. *International Journal of Offender Therapy and Comparative Criminology, 49*, 239–259. Doi 10.1177/0306624X04273200
- Santamaría, J. J., & Chait, L. (2004). Drogadicción y delincuencia. Perspectiva desde una prisión. *Adicciones*, *16*, 207-217.
- Tournier, M., Molimard, M., Cougnard, A., Abouelfath, A., Fourrier, A., & Verdoux, H. (2005). Psychiatric disorders and their comorbidity in subjects with parasuicide by intentinal drug overdose: Prevalence and gender differences. *Psychiatric Research*, *136*, 93–100. Doi 10.1016/j.psychres.2005.06.007
- Weltzer, S. J. (1990). The Millon Clinical Multiaxial Inventory (MCMI): A review. *Journal of Personality Assessment*, *55*, 445-464. Doi 10.1080/00223891.1990.9674083