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Personality disorders in alcoholics: A comparative pilot study between the IPDE and the MCMI-II

Short title: Personality disorders in alcoholics

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ABSTRACT

In this paper, the most frequent personality disorders (PDs) related to alcoholism are described. 105 participants took part in the study (50 consecutively recruited treatment-seeking alcoholics and 55 subjects from the general population). All subjects were assessed with the IPDE and the MCMI-II. According to the results in the IPDE, 22% of alcoholics, versus 7.27% of the normal sample, showed at least one PD. The most prevalent PDs were the Avoidance personality disorder (10%), followed by the Non specified (8%) and Borderline (6%). When the MCMI-II was used a significantly higher prevalence of PDs was observed (52% in alcoholics and 18.1% in the normal sample), without coincidence in the kind of PDs diagnosed. This lack of consistency is probably related to the assessment tools, mainly the *IPDE*, which is more accurate and conservative than self-report inventories, which present a tendency for over-diagnosis.

KEY WORDS: Alcoholism. Personality disorders. Comorbidity. Assessment.

1. INTRODUCTION

In the last years there has been a growing interest to study the prevalence of personality disorders in alcoholism (Fernández-Montalvo & Landa, 2003). However, the different studies carried out up to date show very heterogeneous results, with an ample variability in the rate of comorbidity found: between 28%-30% in some studies (Driessen *et al.*, 1998; Grant *et al.*, 2004; Pettinati *et al.*, 1999) and 80% in others (De Jong *et al.*, 1993; Nurnberg, Rifkin & Doddi, 1993).

On the other hand, there is no consensus with respect to a concrete type of PD which can be associated more frequently with alcoholism. In some studies the *antisocial personality disorder* is the most prevalent (Grant *et al.*, 2004; Morgenstern *et al.*, 1997; Tomasson & Vaglum, 1995), while in others it is the *histrionic* (De Jong *et al.*, 1993) the *paranoid* (Nurnberg *et al.*, 1993), the *narcissistic* (Pettinati *et al.*, 1999), the *passive-aggressive* (Fernández-Montalvo *et al.*, 2002), the *dependent* (Pedrero *et al.*, 2003; Echeburúa, Bravo de Medina & Aizpiri, 2005), the *avoidant* (Bowden-Jones *et al.*, 2004) or even the *non specified* (Driessen *et al.*, 1998).

Therefore, an ample heterogeneity of disorders is observed which do not permit a homogeneous personality profile of this type of patients to be established at the present time. Because of this, the objective of this study is, on one hand, to find out the comorbidity of the PDs with alcoholism, and on the other to analyse the degree of concordance between the IPDE (Loranger, 1995), as a clinical interview, and the MCMI-II (Millon, 1997) as a self-report instrument.

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2. METHOD

2.1. Subjects

The sample for this study consisted of 105 subjects (50 consecutively recruited treatment-seeking alcoholics and 55 normal subjects from the general population). All of them gave their informed consent to take part in the study, and the response rate was 100%.

The alcoholism sample consisted of patients who sought outpatient treatment at the "Proyecto Hombre Alcoholic Treatment Program" of Pamplona (Spain), during the period from November 2003 to August 2004. According to the criteria for admission to the study, the patients had to: a) meet the diagnostic criteria of alcohol dependence according to *DSM-IV-TR* (American Psychiatric Association, 2000); b) have a score equal or above 11 on the *Müncher Alcoholismus Test (MALT)* (Feuerlein, Ringer, & Kufner, 1977); c) be between 18 and 65 years old; and d) give their informed consent to take part in the study.

Regarding the most relevant characteristics of the alcoholics selected, the average score on the *MALT* was 29.5 ($SD=8.2$), with a range from 11 to 50. Alcohol consumption was characterized in mean values as being frequent (6-7 days/week), with a mean of 216.7 grams/day ($SD=123.6$, range: 50-640 grams/day). Patients were alcohol dependent for nearly 12 years before seeking treatment.

The normal control group was composed by people without mental disorders of Axis I, selected among workers at university (clerks; $n=30$) and in a car factory ($n=25$), matched up in age, sex and social class with the

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clinical group. The most significant demographic characteristics of the total sample are presented in *table 1*.

 PLACE TABLE 1 HERE

2.2. Assessment Measures

The *Müncher Alcoholismus Test (MALT)* (Feuerlein *et al.* 1977) is a diagnostic test for alcoholism. A total score equal or above 11, the cut-off point for the total test, suggests diagnosis of alcoholism. The *International Personality Disorders Examination (IPDE)* (Loranger, 1995) is a semistructured diagnostic interview designed to assess PDs. The *IPDE* covers all the criteria for the 11 Axis II disorders of *DSM-IV*. The *Millon Clinical Multiaxial Inventory (MCMI-II)* (Millon, 1997) is a 175-item, true/false, self-report questionnaire designed to identify clinical states and PDs. According to the conservative criteria of Weltzler (1990), a base rate score above 84 is considered to be significant.

2.3. Procedure

Once the clinical sample was selected according to the previously indicated criteria, the evaluation of the alcoholics was conducted in 3 sessions in the course of the pre-treatment assessment. The assessment of the normal control group was carried out after a previous stratification of age, sex and social class with those subjects of the alcoholic group.

The kappa coefficient was used to assess the degree of concordance between the IPDE and the MCMI-II.

3. RESULTS

3.1. Personality disorders with the IPDE

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The prevalence rate of PDs diagnosed by the *IPDE* is showed in *table 2*. 22% of the alcoholics, versus 7.27% of the normal group, showed at least one personality disorder. Comparison between groups in the overall prevalence rate of PDs showed statistically significant differences ($X^2=1.87$; $p<.05$). PDs were more frequently diagnosed in alcoholics than in the control group.

PLACE TABLE 2 HERE

The most prevalent PD, among the alcoholics, was the *Avoidance personality disorder*, which affected 10 per cent of the cases. Nevertheless, there was not any significant difference between groups.

3.2. Personality disorders with the MCMI-II

Regarding the results in the *MCMI-II*, the prevalence rate of PDs is showed in *table 3*. As had occurred in the *IPDE*, PDs were more frequently diagnosed in alcoholics (52% of cases) than in the control group (18.1%). However, now the most prevalent PD among alcoholics was the *Dependence Personality Disorder* (16%).

PLACE TABLE 3 HERE

3.3. Comparison between the IPDE and the MCMI-II

From a clinical point of view, it is very relevant to know the degree of concordance between a self-report instrument and a clinical interview for diagnosis of PDs. Results of this comparison are showed in *table 5*.

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In all cases, the prevalence of PDs was significantly higher when the *MCMI-II* was used. The *IPDE* seems to be more conservative in the diagnosis of PDs. Likewise the coincidence about the kind of PDs diagnosed by both instruments was not strong. Finally, most of the alcoholics (73% of cases) with a PD in the *IPDE* were also diagnosed when the *MCMI-II* was used. However, only 31% of the cases with a PD in the *MCMI-II* were diagnosed when the *IPDE* was used. Thus, the Kappa index between the two assessment instruments was not significant (Kappa= .16; $p = .15$).

4. DISCUSSION

In this study the most relevant finding showed that PDs were common in alcoholics (22% with the *IPDE*), but not so strangely frequent as in other studies. This lack of consistence is probably related to the assessment tools, mainly the *IPDE*, which is more accurate and conservative than self-report inventories used in other studies (Fernández-Montalvo & Landa, 2003). Therefore, as in other previous studies (Echeburúa *et al.*, 2005; Fernández-Montalvo *et al.*, 2002), the results obtained depend in a great degree on the assessment tool that is used.

In this sense, when the *MCMI-II* is used, the prevalent rate of the PDs is 52% in the alcoholic sample. In fact, the *Kappa* index between both instruments shows a very low concordance ($kappa = .16$). Therefore there are important discrepancies between the two instruments, both in the global rate as well as in the specific disorders which were diagnosed. Because of this, it is convenient to use instruments for evaluation that are more precise –for example semistructured interviews like the *IPDE* (Loranger, 1995)- and

not use too many self reports whose validity in the concrete field of PD evaluating can be more limited.

In any case, the prevalence of PDs obtained in this study is very important, because most of the common programs of clinical intervention with alcoholics do not contemplate the existence of PDs. Therefore, the results of this study demonstrate the need of taking into account the PDs in the clinical assessment of alcoholism as well as in the development of specific treatment programs. Moreover, it is necessary that the assessment tools used in different studies be homogeneous, so as to be able to compare the results obtained.

There are several suggestions in this exploratory study which could shed light on further research. In this study, according to the diagnostic philosophy contained within *DSM-IV-TR*, PDs have been considered in a categorical way. However, the dimensional approach to personality disorder diagnosis may yield more precise information (Ullrich, Borkenau & Marneros, 2001) to be able to plan interventions within a promising individual therapy model that focuses both on alcoholism and maladaptive schemes and coping styles (Ball & Cecero, 2001). On the other hand, an interesting and necessary future line of research is to discover what mechanisms explain the association between alcoholism and PDs.

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TABLE 1
SOCIODEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

VARIABLES	ALCOHOLISM GROUP (N=50) ----- Mean (SD)	CONTROL GROUP (N=55) ----- Mean (SD)	t
Mean age	43,46 (29-57)	43,18 (26-58)	1.82
VARIABLES	ALCOHOLISM GROUP (N=50) ----- Mean (SD)	CONTROL GROUP (N=55) ----- Mean (SD)	χ^2
Sex			
Men	38 (76%)	40 (72.7%)	.14
Women	12 (24%)	15 (27.3%)	
Marital status			
Married	23 (46%)	33 (60%)	6.35
Single	10 (20%)	14 (25.4%)	
Divorced	15 (30%)	8 (14.5%)	
Widowed	2 (4%)	0	
Education			
None	2 (4%)	4 (7.2%)	2.53
Primary studies	26 (52%)	21 (38.2%)	
Secondary studies	17 (34%)	21 (38.2%)	
University	5 (10%)	9 (16.4%)	
Socioeconomic status			
Low	2 (4%)	9 (16.4%)	6.06
Middle-low	16 (32%)	12 (21.8%)	
Middle	24 (48%)	27 (49.1%)	
Middle-high	5 (10%)	6 (10.9%)	
High	3 (6%)	1 (1.8%)	
Previous psychiatric history			
Yes	10 (20%)	5 (9.1%)	2.54
No	40 (80%)	50 (90.9%)	

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TABLE 2
DIFFERENCES BETWEEN ALCOHOLICS AND CONTROL GROUP
(IPDE¹)

	ALCOHOLISM GROUP (N=50)		CONTROL GROUP (N=55)		X ²
	N	(%)	N	(%)	
Paranoid	--		--		--
Schizoid	--		--		--
Schizotypal	--		--		--
Histrionic	--		1	(1.8%)	.05
Antisocial	1	(2%)	--		.05
Narcissistic	1	(2%)	--		.05
Borderline	3	(6%)	--		1.20
Obsessive-compulsive	--		1	(1.8%)	.05
Dependent	--		--		--
Avoidant	5	(10%)	1	(1.8%)	1.30
Non specified	4	(8%)	1	(1.8%)	1.10
TOTAL²	11	(22%)	4	(7.3%)	1.87 *

* $p < .05$

¹IPDE = International Personality Disorders Examination

²The 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.

TABLE 3
DIFFERENCES BETWEEN ALCOHOLICS AND CONTROL GROUP
(MCMI-II¹)

	ALCOHOLISM GROUP (N=50)		CONTROL GROUP (N=55)		X ²
	N	(%)	N	(%)	
Schizoid	7	(14%)	--		2.48*
Phobic	7	(14%)	2	(3.6%)	1.55
Dependence	8	(16%)	3	(5.4%)	1.44
Histrionic	1	(2%)	3	(5.4%)	.41
Narcissistic	3	(6%)	--		1.26
Antisocial	4	(8%)	1	(1.8%)	1.03
Aggressive-sadistic	5	(10%)	--		1.94*
Compulsive	3	(6%)	2	(3.6%)	.11
Passive-aggressive	5	(10%)	--		1.94*
Self-destructive	6	(12%)	--		2.22*
Schizotypal	3	(6%)	--		1.26
Borderline	3	(6%)	1	(1.8%)	.61
Paranoid	2	(4%)	--		.74
TOTAL²	26	(52%)	10	(18.1%)	3.44**

* p<.05 ** p<.001

¹MCMI-II = Millon Clinical Multiaxial Inventory

²The 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.

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TABLE 4
RATE OF PERSONALITY DISORDERS: COMPARISON BETWEEN IPDE
AND MCMI-II

	IPDE		MCMI-II		χ^2
	N	(%)	N	(%)	
Alcoholics	11	(22%)	26	(52%)	2.9 *
Normal	4	(7.27%)	10	(18.1%)	1.4
Total	15	(14.2%)	36	(34.2%)	4.01 **

* $p < .01$ ** $p < .001$