

ALCOHOLISM AND PERSONALITY DISORDERS: AN EXPLORATORY STUDY

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Abstract — **Aims:** To define the most frequent personality disorders related to alcohol dependence. **Methods:** Using the International Personality Disorder Examination and the Millon Clinical Multiaxial Inventory-II for personality disorders, 30 consecutively recruited alcohol-dependent patients attending an outpatient clinic were compared with 30 consecutively recruited psychiatric patients with non-addictive disorders and 31 subjects from the general population chosen to match the patient samples for age, gender and socio-economic level. **Results:** Forty percent of the alcohol-dependent patients and 16.6% of the general clinical sample (vs 6.4% of the normative sample) showed at least one personality disorder. Dependent personality disorders were most prevalent (13.3%), followed by paranoid and obsessive-compulsive personality disorders (10% each).

INTRODUCTION

Alcohol abuse and dependence are among the most prevalent mental disorders in the general population. According to a nationally representative sample survey of young and adult people in Spain, alcohol dependence has affected ~7–10% (~3 millions of people) in this population. Nearly half of them are predicted to become strict alcoholics in the near future (Echeburúa, 2001). That problem, obviously, is a challenge for the public health.

On the other hand, prevalence rates for personality disorders (PDs) in the adult community range from a low of 2.8% to a high of 11% (Zimmerman and Coryell, 1989; Weissman, 1993; Alarcón *et al.*, 1998; Tyrer, 2002). Prevalence figures are even more varied when mental health settings are considered. This fluctuation depends on the type of sample (e.g. general population or psychiatric patients), method of diagnosis (e.g. self-report personality inventory or structured interview) and the type of research design (e.g. retrospective chart review, cross-sectional or longitudinal). Accurate diagnosis of PDs is still viewed as a complex and challenging task (Segal and Coolidge, 1998).

These factors have also hampered studies of the association of PDs with alcohol dependence, where the prevalence of PDs is reported as ranging from as low as 24–38% (Zimmerman and Coryell, 1989; Powell and Peveler, 1996; Driessen *et al.*, 1998; Pettinati *et al.*, 1999; Grant *et al.*, 2004) to as high as 58–78% (De Jong *et al.*, 1993; Nurnberg *et al.*, 1993; Morgenstern *et al.*, 1997; Fernández-Montalvo *et al.*, 2002). A meaningful comparison of previous and recent data is difficult because of large discrepancies.

Similarly, the types of PDs found in the literature are very heterogeneous. The most relevant in the clinical trials have been histrionic and dependent (De Jong *et al.*, 1993; Grant *et al.*, 2004), paranoid (Nurnberg *et al.*, 1993), borderline (Powell and Peveler, 1996), antisocial (Morgenstern *et al.*, 1997; Grant *et al.*, 2004), narcissistic and avoidant (Pettinati *et al.*, 1999) or passive-aggressive (Fernández-Montalvo

et al., 2002). Once again, available current data are inconsistent and not conclusive.

The diagnostic disparity and the lack of consistency in the literature with respect to the number and types of PDs associated with alcohol dependence are related to the different assessment tools, to the different severity of alcoholism considered (abuse or dependence) and to the different mental health settings (inpatients or outpatients) (Sher *et al.*, 1999).

The purpose of this study was to contribute to a better knowledge of comorbidity and types of PDs in alcoholics by using accurate assessment tools [International Personality Disorder Examination (IPDE) and Millon Clinical Multiaxial Inventory-II (MCMI-II)] and comparing alcoholics with non-addict psychiatric patients and normal population (Fernández-Montalvo and Landa, 2003).

SUBJECTS AND METHOD

Participants

Patients were drawn from attenders at the outpatient clinic of the Department of Psychiatry of the Psycho-organic Medicine Clinic.

The alcohol-dependent group ($n = 30$) was recruited from consecutive attenders aged ≥ 18 years who met the diagnostic criteria of *DSM-IV-TR* (American Psychiatric Association, 2000) for alcohol dependence and who scored ≥ 11 in the Munich Alcoholism Test (MALT) (Feuerlein *et al.*, 1977). All of them were seeking treatment for problems related to drinking. To be included, the primary diagnosis was alcohol dependence, without other addictive disorders or evidence of psychosis. They had to be able to give informed consent.

The clinical 'control' group ($n = 30$), also aged ≥ 18 years and able to give informed consent, was drawn consecutively from among non-addict, non-psychotic subjects seeking treatment for various mental disorders, the most frequent of which were generalized anxiety disorder, panic disorder, social phobia, obsessive-compulsive disorder, major depression and dysthymic disorder.

The normative group ($n = 31$) were people without mental disorders of Axis I, found among workers at a university (clerks; $n = 14$) and in a canning factory ($n = 17$) who were asked to

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collaborate in research and were motivated to do so by offering them feedback on their personality test results. A selection was made to achieve a group who matched the clinical groups in terms of age, gender and social class, the clinical groups having by chance turned out to be reasonably matched on these measures. All assessments were made during 2003.

Assessment measures

The Structured Clinical Interview is an instrument aimed at assessing, in an initial interview, mental disorders according to the diagnostic criteria of DSM-IV-TR. The content of the interview is related to the most relevant information: current difficulties, current mental disorder, antecedents, family, education, work, social relationships, alcohol and drugs consumption, hobbies, etcetera.

Two personality assessment tools were used. The MCMI-II (Millon, 1997; Spanish version of TEA, 2000) is a self-report questionnaire with 175 true/false items. Thirteen clinical scales assess personality patterns that relate to DSM-III-R Axis II disorders. There are 10 clinic personality pattern scales (schizoid, avoidant, dependent, histrionic, narcissistic, antisocial, aggressive-sadistic, compulsive, passive-aggressive and self-defeating), as well as three severe personality pathology scales (schizotypal, borderline and paranoid). In this study, additional clinical syndrome scales of Axis I were not taken into account because they were not relevant to the purpose of this research.

Raw scores on scales were weighted and converted to base rates scores. The base rate scores reflect the prevalence of a particular personality disorder. According to the conservative criteria of Weltzler (1980), a base rate score >84 is considered to be significant. Although the MCMI-II offers good internal consistency, it has only a modest accuracy for assigning patients to diagnostic groups across a variety of clinical criteria.

The IPDE (Loranger, 1995; Spanish version of López-Ibor *et al.*, 1996) is a semi-structured diagnostic interview designed to assess PDs. The IPDE covers all the criteria for the 11 Axis II disorders of DSM-IV. In order to establish reliable diagnoses, the behavior or trait must be present for at least 5 years and the criterion must be met before the age of 25 years. A self-administered IPDE screening questionnaire is available before the interview to assist in identifying personality disorders that might be of focus in the interview. Inter-rater reliability of the IPDE (median kappa = 0.73), as well as test-retest reliability (median = 0.87) (Blanchard and Brown, 1998) is generally good.

The MALT (Feuerlein *et al.*, 1977; Spanish version of Rodríguez-Martos and Suárez, 1984) is a screening test aimed to identify 'alcoholics' in an 'early contact phase'. The test consists of two parts: a self-rating questionnaire (26 items) and a physician-rating score (7 items). This instrument has been used for a confirmation of the diagnosis of 'alcoholism' in clinical studies.

The MALT is interpreted through the use of cut-off scores. The total score ranges from 0 to 54. Scores from 0 through 5 indicate no or minimal alcoholism; scores from 6 to 10 indicate a risk of alcoholism; and scores from 11 through 54 indicate severe alcoholism.

Procedure

Once the total sample was selected according to the previously indicated criteria, the pre-treatment assessment was conducted

in two sessions. In the first one, data related to psychopathological characteristics were collected and the MCMI-II and the IPDE screening test were carried out. And in the second session, the presence of personality disorders identified in the previous IPDE screening test was accurately assessed with the IPDE interview. The time interval between assessment occasions was 1 week. Patients had to be sober at the time of both interviews.

In order to control the inter-rater reliability, a clinical psychologist (R.B.M.) and a psychiatrist (J.A.), sitting in on the same interview and providing independent rating, carried out together the clinical diagnosis of alcoholism/other mental disorders (with the structured clinical interview) and personality disorders (with the IPDE). With respect to the diagnosis of alcoholism/other mental disorders, the coincidence degree between both professionals was 100%. In the case of personality disorders, the inter-rater reliability in joint interviews was quite high (kappa = 0.83).

In this study, the analyzed data have been the following ones: (i) the overall prevalence rate of personality disorders among the different samples; and (ii) the PDs profile among the different groups.

Non-parametric tests were used for statistical analysis. All the comparisons between groups were analyzed using the Kruskal-Wallis H test. The Mann-Whitney *U*-test was used as a *post-hoc* procedure.

RESULTS

Prevalence rates of Axis I diagnoses, with a duration of at least 3 months, are given for both the clinical samples in Table 1. GAF scores mean was 44.8 (SD = 10.12) for the experimental group and 46.43 (SD = 8.28) for the clinical group, with no statistical differences ($t = 0.497$).

Prevalence rates are reported with respect to both instruments and, in addition, the 'combined' rates. The 40% of the clinical sample of alcoholics and the 16.6% of the general clinical sample (*vs* the 6.4% of the normative sample) showed at least one personality disorder. Comparison between groups in the overall prevalence rate of personality disorders showed statistically significant differences ($\chi^2 = 10.7$, $df = 2$; $P < 0.05$). Personality disorders were more frequently diagnosed in alcoholics than in the other groups (Table 2).

Table 1. Axis I mental disorders in the clinical groups

	Alcohol-dependent group <i>n</i> (%)	Clinical control group <i>n</i> (%)
Major depression	5 (16.7)	7 (23.3)
Dysthymic disorder	1 (3.3)	4 (13.3)
Panic disorder	4 (13.3)	2 (6.7)
Generalized anxiety disorder	1 (3.3)	9 (30)
Obsessive-compulsive disorder	1 (3.3)	3 (10)
Bipolar disorder	1 (3.3)	1 (3.3)
Adaptive disorder	0	3 (10)
Social phobia	0	1 (3.3)
None	17 (56.7)	0
Total	30 (100)	30 (100)

The most prevalent ones, among the alcoholics, were the dependent personality disorder (13.3%), followed by the paranoid and obsessive–compulsive personality disorders (10% each). In turn, the most diagnosed PDs among the non-addict patients were the obsessive–compulsive (13.3%), followed by the paranoid (6.6%) and the dependent disorders (3.3%). And, finally, in the normative control group, the most prevalent PDs were histrionic and paranoid (3.2% each). There were not any statistically significant differences (Table 3).

With respect to the three clusters of PDs, the presence of cluster C was higher among the alcoholics ($n = 8$; 26.6%) than in the clinical group ($n = 4$; 13.3%) and in the normative group ($n = 0$; 0%) and was statistically significant ($\chi^2 = 9.47$, $df = 2$; $P < 0.05$).

Finally, with respect to the number of PDs showed by affected patients, the most frequent was to show one PD. There were only four patients who showed two PDs. There were not any statistically significant differences among the different groups.

DISCUSSION

A strength of our design was the inclusion of both a clinical control group and a normative control group and the type of personality was considered with two specific assessment tools (MCMI-II and IPDE). These features distinguish this study from much of the previous literature.

Table 2. Rates of personality according to the IPDE and the MCMI-II

	IPDE + MCMI-II <i>n</i> (%)	IPDE <i>n</i> (%)	MCMI-II <i>n</i> (%)
Alcohol-dependent subjects	12 (40)	12 (40)	29 (96.7)
Clinical controls	5 (16.6)	5 (16.7)	23 (76.7)
Normative controls	2 (6.4)	3 (9.7)	19 (61.3)
Total	19 (20.9)	20 (22)	71 (78)
χ^2 (df)	10.868** (2)	8.911* (2)	11.175** (2)

* $P < 0.05$; ** $P < 0.005$.

A limitation is that participants in this study only represent alcohol-dependent patients in outpatient treatment. This study does not deal with the homeless or people belonging to the lower strata of society with many psychosocial problems (no job, no partnership, no home, etc.) who are usually not represented in the help-seeking populations in Spain. This study relates to more integrated patients, although it includes some with severe alcohol dependence.

The most salient finding is that 40% of the alcoholics met DSM-IV-TR diagnostic criteria for a personality disorder compared with 16.6% of the non-addict patients and 6.4% of the normative controls. Previous studies found that PDs were very common in alcoholics (Cuadrado, 1998, 1999; De Jong *et al.*, 1993; Nurnberg *et al.*, 1993; Powell and Peveler, 1996; Morgenstern *et al.*, 1997; Driessen *et al.*, 1998; Pettinati *et al.*, 1999; Grant *et al.*, 2004). But the contribution of this study is to have proven that this high rate of comorbidity with PDs is different from and much higher in alcohol dependence than in other Axis I mental disorders, such as mood and anxiety disorders.

Unlike other studies, where the average number of PD diagnoses is generally 2–4 (Driessen *et al.*, 1998), the average number of diagnosed PDs for each subject in our study was one. PDs found in alcoholics tended to be within the cluster C category, such as dependent (13.3%) and obsessive–compulsive (10%), except in the case of paranoid PD (10%). These findings are consistent with those found by other studies (Driessen *et al.*, 1998), but not with others (De Jong *et al.*, 1993; Nurnberg *et al.*, 1993), in which the prevalence rate of PDs in alcoholics, as well the average number of PDs for each subject, were higher. Unlike other studies (Lewis *et al.*, 1985; Grant *et al.*, 2004), antisocial or borderline PDs were not prevalent in our sample. This lack of consistency with these studies could be related to our sample (drawn only from outpatients) or to the different assessment tools (IPDE and MCMI-II together) used in our study to diagnose a PD. The accuracy of the self-reports, such as MCMI, by themselves, can be expected to be poor. However, further research is required to find out if antisocial PD and borderline PD were overdiagnosed in the previous literature.

Table 3. Frequency and profile of personality disorders in the different groups in IPDE

Personality disorders	Alcoholic dependents <i>n</i> = 30		Clinical controls <i>n</i> = 30		Normative controls <i>n</i> = 31		χ^2 (df)
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Paranoid	3	10	2	6.6	1	3.2	1.136 (2)
Schizoid	1	3.3	0	0	0	0	2.056 (2)
Schizotypal	1	3.3	0	0	0	0	2.056 (2)
Histrionic	0	0	0	0	1	3.2	1.957 (2)
Antisocial	0	0	0	0	0	0	0 (2)
Narcissistic	1	3.3	0	0	0	0	2.056 (2)
Borderline	0	0	0	0	0	0	0 (2)
Obsessive–Compulsive	3	10	4	13.3	0	0	4.153 (2)
Dependent	4	13.3	1	3.3	0	0	5.622 (2)
Avoidant	1	3.3	0	0	0	0	2.056 (2)
Non-specified	0	0	0	0	0	0	0
Total ^a	12	40	5	16.6	2	6.4%	10.748*

* $P < 0.05$.

^aThere are patients who can show more than one personality disorder and so the total number does not exactly correspond to the addition of the partial numbers.

The main difference between alcoholics and non-addict patients was that the alcoholics showed 2.5 times more PDs than the latter. There were no specific differences between the groups with respect to the type of PDs. In turn, non-addict patients showed nearly 2.5 times PDs more than the subjects of the normative control group.

The purpose of this paper was to understand the role played by the psychiatric comorbidity (referred, in this case, to PDs) in alcoholism and to help identify different kinds of patients. Personality processes must be integrated to forward our understanding of alcoholism (Sher *et al.*, 1999). This information could be helpful in alerting the clinician to potential obstacles and difficulties early in therapy, thereby increasing treatment compliance and guiding treatment decisions based on the patient's personality pattern. Further research on the underlying structure of PDs and the treatment implications of these disorders when comorbid is needed.

However, much remains to be achieved. This is a pilot study with the sample size not being large enough to generate generalizable and reliable findings. This is only the preliminary point of an ongoing work about the frequency of personality disorders in alcoholism and according to the epidemiological literature (Alarcón *et al.*, 1998; Tyrer, 2002), it may be an underestimation of the prevalence of PDs.

In this study, according to the diagnostic philosophy contained within DSM-IV-TR, PDs have been considered as categorical. However, a dimensional approach to personality disorder diagnosis may yield more precise information (Ullrich *et al.*, 2001) to plan interventions within a promising individual therapy model that focuses both on alcohol abuse and maladaptive schemas and coping styles (Ball and Cecero, 2001). Moreover it would be interesting, according to the typology based on indicators of vulnerability and severity (Litt *et al.*, 1992), not to consider alcoholism as an only construct, but to study the application of this empirically-derived typology to treatment matching. And, finally, specific gender differences should be dealt with in further research in order to test some preliminary conclusions (obsessive-compulsive, histrionic, schizoid and antisocial PDs, more frequent in alcoholic women; dependence, more frequent in men) (Grant *et al.*, 2004).

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