

4 Prevalence of Personality Disorders 5 in Patients with Eating Disorders: 6 A Pilot Study Using the IPDE 7 8 9 10 11 12

13 Izaskun Marañón^{1*}, Enrique Echeburúa¹
14 and Jorge Grijalvo²

15 ¹Facultad de Psicología, University of the Basque Country, San Sebastian,
16 Basque Country

17 ²Osakidetza (Basque Health Service), San Sebastian, Basque Country
18

19
20 **Objective:** The present study aims to determine the comorbidity
21 of personality disorders (PD) with anorexia and bulimia nervosa,
22 and to establish the major personality characteristics of eating
23 disorders subtypes.

24 **Method:** Using the International Personality Disorders Examina-
25 tion (IPDE), the study investigated the personality profiles of 66
26 outpatients with eating disorders. Statistical analyses were carried
27 out using non-parametric methods such as the Kruskal-Wallis H
28 test and Mann-Whitney U.

29 **Results:** 51.5% of the overall sample met criteria for at least one
30 personality disorder. Purging anorexia nervosa patients were the
31 most affected. The most common personality disorders were
32 obsessive-compulsive, avoidant, dependent, borderline and not
33 otherwise specified.

34 **Discussion:** More than half of the subjects with AN and BN met
35 the criteria for at least one PD. This finding is a challenge for
36 clinical practice. Implications for further research in this area are
37 commented on. Copyright © 2004 John Wiley & Sons, Ltd and
38 Eating Disorders Association.

39
40 Keywords: [Q1](#)

Q1

41
42
43
44 The comorbidity of eating disorders (ED) and per-
45 sonality disorders (PD) has been studied since
46 the incorporation of the criteria for PDs on Axis II
47 in the *Diagnostic and Statistical Manual of Mental*
48 *Disorders* (DSM) (Matsunaga, Kiriike, Nagata, &
49 Yamagami, 1998). The development of structured
50 diagnostic interviews such as the IPDE (Loranger,
51 1995) or SCID-II (Spitzer, Williams, & Gibbon,
52 1987) and of self-report questionnaires such as the

53
54 MCMII-II (Millon, 1997) has been important for the
55 study of that comorbidity.

56 The comorbidity of PDs in patients with EDs
57 is generally high: it can range from 20 to 80%
58 (Echeburúa & Marañón, 2001). One of the reasons
59 for these variations in observed rates is the different
60 instruments used in the studies to assess PDs. When
a self-report questionnaire is used for the diagnosis
of a PD, the prevalence rates of PDs among patients
with EDs range from 72 to 100% (Norman, Blais, &
Herzog, 1993; Kennedy et al., 1995; Del Río, Torres,
& Borda, 2002; Echeburúa, Marañón, & Grijalvo,
2002). However, the percentages of such comor-
bidity are lower (from 26 to 75%) when the PDs

54
55 *Correspondence to: Izaskun Marañón, Facultad de Psicología,
56 Universidad del País Vasco, Avda de Tolosa, 70, 20018
57 San Sebastián, Spain.
58 E-mail: ptbmagui@ss.ehu.es

assessment is carried out using structured interviews (Gartner, Marcus, Halmi, & Loranger, 1989; Kennedy et al., 1995; Matsunaga, Kiriike, Nagata, & Yamagami, 1998; Díaz-Marsá, Carrasco, & Saiz, 2000; Matsunaga et al., 2000).

Questionnaires are evaluation measures from which very valuable information can be obtained when they are correctly designed and applied. However, they present various difficulties, such as the variability in the degree of introspection of the subjects, possible deception, social desirability bias or halo effects in the answers. Structured interviews, however, are exhaustive evaluation techniques which allow us to gather detailed information about the subject from his verbal statements and from observing his behaviour. Clinical judgement plays a very important role in evaluation with interviews. Nowadays, due to the great popularity of standardized psychiatric classifications, this type of interview has assumed great importance and appears to be a method which is preferable to self-reports.

The aim of the present study was to determine the comorbidity of PDs with anorexia and bulimia nervosa and to establish the major personality characteristics of EDs subtypes as measured by a structured interview (the IPDE).

METHOD

Subjects

This study was carried out in the course of an extensive clinical trial of the Personality Disorders Examination. The subjects were 66 young females ($\bar{X} = 22.21$ years, $SD = 5.368$) who met criteria for an ED diagnosis according to the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association, 1994). Cases in the study included: 16 people with anorexia nervosa restricting subtype (ANr), 10 with anorexia nervosa bingeing/purging subtype (ANp), 21 with bulimia nervosa (BNp) and 19 diagnosable as eating disorder not otherwise specified (EDNOS).

The subjects were recruited in an outpatient clinical setting from the Eating Disorders Unit of Osakidetza (Basque Health Service), sited in San Sebastian (Basque Country, Spain), between January 2001 and December 2002. That particular unit is the reference centre for an area of 750 000 inhabitants.

Measures

The EDs were diagnosed by a clinical interview following the DSM-IV diagnosis criteria. The

diagnoses were established independently by one experienced psychiatrist (the third author of this paper) and one clinical psychologist.

The personality disorders were assessed using the Spanish version (López-Ibor, Pérez-Urdániz, & Rubio, 1996) of the International Personality Disorders Examination (IPDE) (Loranger, 1995). This is a structured interview having 99 questions divided into five general content areas (work, self, interpersonal relations, affect, and impulse control). It covers all the criteria for the 11 Axis II disorders of DSM-IV.

Procedure

Once the diagnosis for the ED was completed, and before treatment, all the patients were interviewed with the IPDE. First, they filled in the IPDE screening test; they then answered the questions related to those personality scales which had been positive at the screening. The IPDE interview was conducted by a doctoral-level psychologist with extensive experience in diagnostic assessment with structured interviews (the first author).

In this study, the following data were analysed: (1) both the overall prevalence rate of personality disorders and the prevalence of PDs among the subtypes of EDs; and (2) the PDs profile of these patients.

Non-parametric statistical analyses were used. All comparisons between groups were analysed using the Kruskal-Wallis H test. The Mann-Whitney U was employed as a post-hoc procedure.

RESULTS

For the entire sample, the overall prevalence rate for at least one PD was 51.5%. PDs were diagnosed in 80% of the subjects in the ANp group, 67% of the subjects in the BNp group, 42% of the subjects in the EDNOS group and, finally, in 25% of the subjects in the ANr group. The differences found between groups of patients with subtypes of EDs were statistically significant ($\chi^2 = 10.199$; $df = 3$; $p < 0.05$): PDs were more frequently diagnosed in patients with ANp ($\chi^2 = 36$; $p < 0.01$) and BNp ($\chi^2 = 98$; $p < 0.05$) than in patients with ANr (Table 1).

Subjects were affected by a different number of PDs depending on the ED group ($\chi^2 = 10.986$; $df = 3$; $p < 0.05$). The PDs mean for those people in the ANp group ($\bar{X} = 1.30$) was higher than the PDs mean for those in the ANr group ($\bar{X} = 0.31$) ($\chi^2 = 31.5$; $p < 0.01$) and in the EDNOS group ($\bar{X} = 0.53$) ($\chi^2 = 50$; $p < 0.05$). Moreover, the PDs mean in the BNp group ($\bar{X} = 0.81$) was also higher than the mean in the ANr group ($\chi^2 = 100.5$; $p < 0.05$) (Table 2).

Table 1. Frequency of personality disorders in patients with an eating disorder

Personality disorders										
ANr N = 16		ANp N = 10		BNp N = 21		EDNOS N = 19		Total N = 66		χ^2
N	%	N	%	N	%	N	%	N	%	10.199*
4	25	8	80	14	66.7	8	42.1	34	51.5	

ANp > ANr; BNp > ANr. ANr, anorexia nervosa restricting subtype; ANp, anorexia nervosa bingeing/purging subtype; BNp, bulimia nervosa; EDNOS, eating disorder not otherwise specified.

* $p < 0.05$.

When all of the subjects were considered together, obsessive-compulsive PD (19.7%) was most commonly found, followed by avoidant PD (16.7%), borderline (13.6%) and not otherwise specified PD (13.6%). No diagnoses of schizoid, schizotypal or antisocial PD were made in this sample (Figure 1). Moreover, when the different EDs were compared, the patients with ANp were more frequently diagnosed with an obsessive-compulsive PD than the other groups (ANr = 12.5%; ANp = 60%; BNp = 14.3%; EDNOS = 10.5%) ($\chi^2 = 10.799$; $df = 3$; $p < 0.05$) and also with a dependent PD (ANr = 0%; ANp = 20%; BNp = 0%; EDNOS = 0%) ($\chi^2 = 8.403$; $df = 3$; $p < 0.05$) (Table 3).

Regarding the three clusters of PDs, the cluster C (anxious-fearful subjects) PDs were most commonly diagnosed (30%), followed by the cluster B (dramatic-erratic subjects) PDs (15.2%). Comparing the four groups of EDs, the patients in the ANp group were more often diagnosed by a cluster C PD (80%) than the patients in other EDs groups ($\chi^2 = 14.408$; $df = 3$; $p < 0.01$) (ANr = 18.8%; BNp = 8.6% EDNOS = 15.8%) (Table 4).

DISCUSSION

This study is included in an extensive investigation whose purpose is to ascertain the comorbidity

between PDs and EDs, assessed by the MCMI-II and the IPDE, in order to adapt the treatments to the specific needs of the patients. The most important limitation in the present study (justified as it was a pilot study) was the absence of control groups. Nevertheless, some conclusions can be drawn.

The most relevant conclusion was that more than half of the subjects with AN and BN (51%) met the criteria for at least one PD. This finding is consistent with those of previous reports using structured interviews to assess PDs (Gartner et al., 1989; Matsunaga et al., 1998). This fact is a challenge for clinical practice, because the presence of a PD in a patient with AN or BN complicates the treatment and the prognosis for the ED worsens (Díaz-Marsá, Carrasco, Prieto, & Saiz, 1999).

Regarding the specific subtypes of eating disorders, the patients with ANp were the most affected by PDs. We can suppose that they also presented more psychopathological complications. This result is consistent with a deficit of life quality in this kind of patient (Grijalvo, Insúa, & Iruín, 2000).

The most frequent PDs in our sample were obsessive-compulsive, avoidant and borderline. These findings are consistent with those of other authors (Gartner et al., 1989; Grilo, Levy, Becker, Edell, & McGlashan, 1996; Matsunaga et al., 2000).

In addition, in this study, the patients with ANp were the ones who showed more frequently an

Table 2. Number of personality disorders in different eating disorders

No. of personality disorders	ANr N = 16	ANp N = 10	BNp N = 21	EDNOS N = 19	Total N = 66	χ^2
0	12 (75%)	2 (20%)	7 (33%)	11 (57.9%)	32 (48.5%)	10.986*
1	3 (18.8%)	4 (40%)	12 (57.1%)	6 (31.6%)	24 (37.9%)	
2	1 (6.3%)	3 (30%)	1 (4.8%)	2 (10.5%)	7 (10.6%)	
3		1 (10%)	1 (4.8%)		2 (3%)	
Personality disorders mean	(\bar{x}) 0.31	(\bar{x}) 1.30	(\bar{x}) 0.81	(\bar{x}) 0.53	(\bar{x}) 0.68	

ANp > ANr, EDNOS; BNp > ANr. ANr, anorexia nervosa restricting subtype; ANp, anorexia nervosa bingeing/purging subtype; BNp, bulimia nervosa; EDNOS, eating disorder not otherwise specified.

* $p < 0.05$.

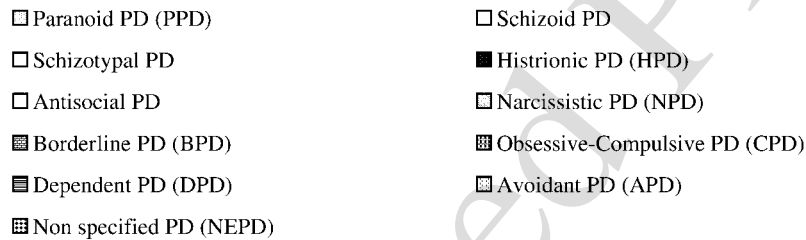
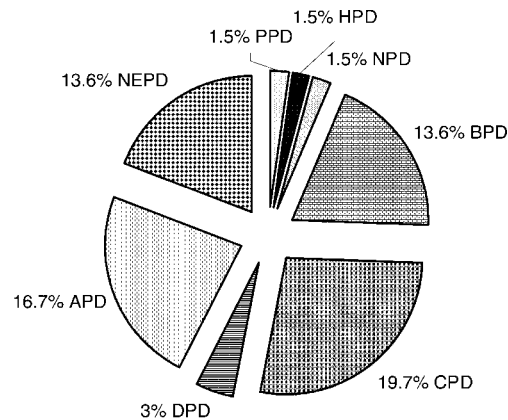


Figure 1. Personality disorders percentage in patients with an eating disorders

Q2

obsessive-compulsive PD. The same conclusion has been drawn in some previous studies (Gartner et al., 1989), but not in others (Matsunaga et al., 1998). Furthermore, if the analysis was performed exclusively with the patients in the ANp group, the most frequent PD in that group was obsessive-compulsive. In other studies, however,

the most prevalent PD in the ANp patients was borderline PD (Grilo et al., 1996; Díaz-Marsá et al., 2000).

These results show that, beyond the different data found in the published studies (for example, the differences between this study and our previous one with the MCMI-II, Echeburua et al., 2002),

Table 3. Personality disorders profile in different eating disorders

Personality disorders	ANr		ANp		BNp		EDNOS		Total		χ^2
	N	%	N	%	N	%	N	%	N	%	
Paranoid	0	0	0	0	0	0	1	5.3	1	1.5	4.651
Schizoid	0	0	0	0	0	0	0	0	0	0	2.916
Schizotypal	0	0	0	0	0	0	0	0	0	0	5.6
Histrionic	0	0	0	0	0	0	1	5.3	1	1.5	2.012
Antisocial	0	0	0	0	0	0	0	0	0	0	0
Narcissistic	0	0	0	0	0	0	1	5.3	1	1.5	1.857
Borderline	0	0	2	20	5	23.8	2	10.5	9	13.6	0.773
Compulsive	2	12.5	6	60	3	14.3	2	10.5	13	19.7	10.799*
Dependent	0	0	2	20	0	0	0	0	2	3	8.403*
Avoidant	2	12.5	3	30	4	19	2	10.5	11	16.7	0.941
Non-specified	2	12.5	0	0	5	23.8	2	10.5	9	13.6	2.705

ANp > ANr, BNp, EDNOS. ANr, anorexia nervosa restricting subtype; ANp, anorexia nervosa binge/purging subtype; BNp, bulimia nervosa; EDNOS, eating disorder not otherwise specified.

* $p < 0.05$.

Table 4. Personality disorders types profile in different eating disorders

Personality disorders type	ANr		ANp		BNp		EDNOS		Total		χ^2
	N	%	N	%	N	%	N	%	N	%	
Type A	0	0	0	0	0	0	1	5.3	1	1.5	2.474
Type B	0	0	2	20	5	23.8	3	15.8	10	15.2	2.426
Type C	3	18.8	8	80	6	28.6	3	15.8	20	30.3	14.408*

ANp > ANr, BNp, EDNOS. ANr, anorexia nervosa restricting subtype; ANp, anorexia nervosa bingeing/purging subtype; BNp, bulimia nervosa; EDNOS, eating disorder not otherwise specified.

* $p < 0.01$.

EDs are disorders which rarely appear psychopathologically pure. Complications with axis II clinical disorders are common. This should be taken into account when planning treatment. In doing this, the design of intervention programmes which consider personality aspects would be useful. The development of specific therapeutic programmes for EDs comorbid with PD is a challenge for clinical research.

In the future, it would be useful, as well as resorting to broader samples, to compare results from the application of the IPDE with those obtained by self-reports which evaluate personality disorders (for example MCMI-II). Given that having an axis I disorder increases the probability of having an axis II disorder, it is also important that clinical control groups are used in future studies. Certainly, it is important to know if personality disorders really appear in patients with EDs to a greater extent than in other clinical populations and if they are qualitatively different.

Finally, and from a psychopathological perspective, it is surprising that patients with an EDNOS constitute 29% of the total sample in our study and that they are the most numerous subgroup after BNp. These data need to be analysed in future research, to further clarify the currently existing subtypes in the DSM-IV-TR and in the CIE-10, as it does not seem logical that what is currently presented as a residual category includes such a large number of patients. At present, patients with anorexia or bulimia who do not (yet) have amenorrhoea or who do not (yet) have a body mass index below 17.5 fall automatically into this category.

REFERENCES

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- Del Río, C., Torres, I., & Borda, M. (2002). Comorbilidad entre bulimia nervosa purgativa y trastornos de la personalidad según el Inventario Clínico Multiaxial de Millon (MCMI-II). *Revista Internacional de Psicología Clínica y de la Salud/International Journal of Clinical and Health Psychology*, 2, 425–438.
- Díaz-Marsá, M., Carrasco, J. L., Prieto, R., & Saiz, J. (1999). El papel de la personalidad en los trastornos de la conducta alimentaria. *Actas Españolas de Psiquiatría*, 27, 43–50.
- Díaz-Marsá, M., Carrasco, J. L., & Saiz, J. (2000). A study of temperament and personality in anorexia and bulimia nervosa. *Journal of Personality Disorders*, 14, 352–359.
- Echeburúa, E., Marañón, I., & Grijalvo, J. (2002). Trastornos de personalidad en pacientes aquejados de anorexia y bulimia nervosa: Un estudio-piloto. *Revista de Psicopatología y Psicología Clínica*, 7, 95–101.
- Echeburúa, E., & Marañón, I. (2001). Comorbilidad de las alteraciones de la conducta alimentaria con los trastornos de personalidad. *Psicología Conductual*, 7, 95–101.
- Gartner, A., Marcus, R., Halmi, K., & Loranger, A. (1989). DSM-III personality disorders in patients with eating disorders. *American Journal of Psychiatry*, 146, 1585–1591.
- Grijalvo, J., Insúa, P., & Iruín, A. (2000). Características y evolución de los pacientes con trastornos de la conducta alimentaria atendidos en un Servicio Público de Salud Mental Extrahospitalaria. *Psiquiatría Biológica*, 7, 100–108.
- Grilo, C. M., Levy, K. N., Becker, D. F., Edell, W. S., & McGlashan, T. H. (1996). Comorbidity of DSM-III-R Axis I and II disorders among female inpatients with eating disorders. *Psychiatric Services*, 47, 426–429.
- Kennedy, S. H., Katz, R., Rockert, W., Mendlowitz, S., Ralevski, E., & Clewes, J. (1995). Assessment of personality disorders in anorexia nervosa and bulimia nervosa: A comparison of self report and structured interview methods. *The Journal of Nervous and Mental Disease*, 183, 358–364.
- López-Ibor, J., Pérez Urdaniz, A., & Rubio, V. (1996). *Examen internacional de los trastornos de la personalidad: Módulo DSM-IV. Versión Española*. Madrid: Organización Mundial de la Salud.
- Loranger, A. W. (1995). *International Personality Disorder Examination (IPDE)*. Ginebra: Organización Mundial de la Salud.
- Matsunaga, H., Kiriike, N., Nagata, T., & Yamagami, S. (1998). Personality disorders in patients with eating

- 1
2
3
4 disorders in Japan. *International Journal of Eating Disorders*, 23, 399–408.
- 5 Matsunaga, H., Kaye, W. H., McConaha, C., Plotnicov, K.,
6 Pollice, C., & Rao, R. (2000). Personality disorders
7 among subjects recovered from eating disorders.
8 *International Journal of Eating Disorders*, 27, 353–357.
- 9 Millon, T. (1997). *Millon Clinical Multiaxial Inventory-II*
10 (MCMI-II). Minneapolis: National Computer Systems.
- 11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
- Norman, D., Blais, M. A., & Herzog, D. (1993). Personality characteristics of eating-disordered patients as identified by the Millon clinical multiaxial inventory. *Journal of Personality Disorders*, 7, 1–9.
- Spitzer, R. L., Williams, J. B., & Gibbon, M. (1987). *The structured clinical interview for DSM-III-R personality disorders*. New York: Biometric Research, New York State Psychiatric Institute.

1
2
3
4 **Author Query Form (ERV/578)**
5
6
7

8 **Special Instructions: Author please write responses to queries directly on Galley proofs.**
9

10 **Q1: Author: Please supply Keywords?**
11

12 **Q2: Author: ‘Paranoid’ and ‘Borderline’**
13 **misspelled in key to figure.**
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Uncorrected Proof