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Personality factors and eating disorders: Self-uncertainty

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ABSTRACT

The International Personality Disorder Examination interview (IPDE) was used to examine common features of personality amongst eating disorder (ED) patients. Female inpatients (N = 155), aged 18 to 45, BMI < 30 kg/m^2, were interviewed. Items present in ≥25% of patients were analysed by factor analysis. Five factors emerged — 'interpersonal anxiety', 'instability', 'self-uncertainty', 'obsessionality' and 'perfectionism' accounting for 62% of the variance. Patients with BMI, <18.5 kg/m^2 had significantly greater 'interpersonal anxiety' factor scores. Patients who purged had higher 'interpersonal anxiety', 'instability', and 'perfectionism' factor scores. Differences between ED diagnostic groups were accounted for by body weight and purging. Increasing age was weakly associated with improvement in 'self-uncertainty' and 'instability' scores. This study separates obsessionality and perfectionism, possibly reflecting ED patients' 'need for control', and introduces a new factor 'self-uncertainty' which reflects their poor self-concept. The contribution of this factor structure to development and duration of illness should be studied.

1. Introduction

Both presence and severity of personality pathology influence the course of psychiatric disorders (Grilo, 2002). Personality features are thought to be relevant to general functioning, clinical characteristics and prognosis of persons with eating disorders (ED); greater pathology requires more intense treatment (Klump et al., 2004; Larsson & Hellzen, 2004; Lilenfeld, Wonderlich, Riso, Crosby, & Mitchell, 2006; Milos, Spindler, Buddeberg, & Crameri, 2003; Steiger & Bruce, 2004; Treasure, Crane, McKnight, Buchanan, & Wolfe, 2011; Wagner et al., 2006; Westen & Harnden-Fischer, 2001).

Research into personality disorders (PD) in ED has yielded inconsistent results (Diaz-Marsa, Carrasco Perera, Prieto Lopez, & Saiz Ruiz, 2000; Godt, 2008; Ilkjaer et al., 2004; Kennedy, McVey, & Katz, 1990; Modestin, Oberson, & Erni, 1997; Rosenvinge, Martinussen, & Ostensen, 2000; Vitousek & Manke, 1994; Zubieta, Demitrack, Fenick, & Krahn, 1995) and prevalence rates of PD in ED vary — between 27% and 93% (Skodol et al., 1993). Contributing to these variations are: 1. use of different interview schedules (Skodol et al., 1993; Wonderlich et al., 2007) and measurement tools such as self-report instruments, which overestimate the prevalence of personality pathology (Cassin & von Ranson, 2005); 2. assessment of personality as categorical or dimensional; the former having poorer discriminant validity (Haslem, Holland, & Kuppens, 2012; Loranger et al., 1994; Wonderlich & Mitchell, 2001); 3. temporal instability of PD categories (Wonderlich & Mitchell, 2001) and 4. ED behaviours may influence reporting of personality variables. Additionally, previous factor analytical studies of personality pathology in ED have identified varying factor structures often differing from existing personality constructs (Grilo, 2004; Lampard, Byrne, McLean, & Fursland, 2012). This suggests the importance of exploring personality factors in ED.

The International Personality Disorder Examination (IPDE; Loranger, Janca, & Sartorius, 1997) is considered an accurate, conservative instrument and 'better than clinical judgment' (Karwautz, Troop, Rabe-Hesketh, Collier, & Treasure, 2003). Providing dimensional scores for DSM-IV PD, it has been validated in a worldwide WHO study revealing good inter-rater reliability and temporal stability (Loranger et al., 1994). The interview contains prompt questions and asks for examples to clarify and ensure that the item is not attributable to the ED. Previously the IPDE has only been used to investigate differences between obese, binge eating disorder (BED) and bulimia nervosa (BN) groups (van Hanswijck de Jonge, van Furth, Lacey, & Waller, 2003).

We explored the factor structure derived from the more common and frequently cited set of items of the IPDE within a non-obese ED population (trans-diagnostic approach), and ascertained if these differed or were common for patients: employing different weight losing behaviours, at different body weights and, post hoc, with different diagnoses.

2. Material and methods

2.1. Participants

Patients consecutively admitted to the Northside Clinic ED unit for inpatient treatment were asked to participate if they were female, 18 to 45 years, and had no major comorbid psychiatric (e.g. bipolar disorder) or medical diagnoses (e.g. diabetes). All patients fulfilled the

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DSM-IV criteria for a current ED (American Psychiatric Association (APA), 1994).

Of the 171 eligible patients approached 16 did not give consent. There were no significant differences between those participating or not participating for age and current BMI. Of the 155 participants included in the study 34 had a diagnosis of anorexia nervosa-restricting type (AN-R), 29 a diagnosis of anorexia nervosa–binge/purging type (AN-BP), 44 had BN and 48 were diagnosed with eating disorder not otherwise specified (EDNOS). Average age of sample was 24 years (SD 6) and there was no significant difference between the ED diagnostic groups on ED QOL Global Score (mean 16, SD 4).

2.2. Measures

The IPDE is a semi-structured clinical diagnostic interview created as a standardised and international resource to assess PDs. The items cover all criteria for the ten Axis II disorder diagnoses of the DSM-IV. All items are rated as definite (score 2), probable (score 1) or absent (score 0). The dimensional score is calculated by adding up all item scores of a PD (0, 1 or 2). The dimensional scores were used as they have higher reliabilities than definite categorical scores (score 2) (Loranger et al., 1994).

Additional clinical data were obtained at interview, through case notes and the self-report Eating and Exercise Examination (EEE) which contains the Quality of Life for eating disorders (QOL ED) Global score and examines ED behaviours (objective binge eating, excessive exercise, laxative abuse, self-induced vomiting) over the previous three months (Abraham, Brown, Boyd, Luscombe, & Russell, 2006; Abraham & Lovell, 1999).

2.3. Procedure

Participants were interviewed during admission to a specialised ED unit from 2006 to 2011 (once medically stable and after at least three weeks of regular supervised eating and weight maintenance or weight gain as appropriate). The interviews were conducted by specialists trained in using the IPDE and checked by one expert clinician. Approval was granted by the Human Ethics Committees of the University of Sydney and the Northside Clinic.

2.4. Statistical analysis

A large sample size would be required if all 80 IPDE variables were included in a factor analysis. Consequently, measures were taken to reduce the number of variables included in the factor analysis. Specifically, only items showing adequate response variation, defined as symptom presence of ≥25% were retained, keeping the ratio of ten subjects for each question which is common in the literature (Costello & Osborne, 2005) and in keeping with Gorsuch's (1983) recommendation of five subjects per item, with a minimum of 100 subjects. The number of factors was confirmed by scree plot. Principal components analysis using varimax rotation was conducted on the responses to the remaining eleven questions (detailed in Table 1). Sampling adequacy was assessed using the Kaiser–Meyer–Olkin (KMO) statistic and the strength of the relationship amongst the variables with Bartlett's test of sphericity. Factors with an eigenvalue >1.0 (Comrey & Lee, 1994) and factor loading >0.50 (Field, 2005) were retained.

Factor scores were calculated by multiplying item scores by the item loading and summing. Univariate ANOVA, controlling for age, compared factor scores by ED behaviours (presence of self-induced vomiting, laxative use, objective binge eating at least once/week, and excessive exercise on more than 19 days/month). Post hoc univariate ANOVA were run for the four ED diagnoses for each factor with age, BMI and purging as covariates. The data were analysed using SPSS version 19.0 and alpha was set at 0.05.

3. Theory/calculation

Researchers have demonstrated that many PD features originally construed as uni-dimensional are in fact not. For example, Lampard et al. (2012) demonstrated two dimensions of perfectionism in ED patients: self-oriented and socially prescribed; and Grilo (2004) reported DSM-IV obsessive–compulsive PD had three factors amongst BED patients: rigidity (interpersonal aspect), perfectionism (intrapersonal aspect) and miserliness (behavioural aspect). These researchers concluded that the results are important in regards to the development, maintenance and treatment of ED comorbid with axis II features, in particular the 'intrapersonal', 'self-oriented' feature of 'perfectionism'

Table 1
Factors arising from factor analysis of the 20 most frequently cited IPDE questions (principal components analysis with varimax rotation).

Factor	Original IPDE Scale	Statement	1	2	3	4	5
Interpersonal anxiety	Avoidant	Inhibited in new interpersonal situation; quieter and more cautious than usual as feels inadequate, unsure, inferior	**.838**	.074	.043	−.058	.074
	Avoidant	Preoccupation with being criticised or rejected in social situations	**.735**	−.030	.250	.046	−.022
	Avoidant	Views self as socially inept, unappealing, inferior	**.705**	.356	.072	−.019	.093
	Avoidant	Reluctant to take personal risks or engage in new activities as may prove embarrassing	**.612**	.213	.209	.182	.066
	Avoidant	Not willing to get involved with people unless certain of being liked	**.591**	−.016	−.012	.263	.022
Instability	Borderline	Chronic feelings of emptiness	.136	**.803**	.113	−.088	.239
	Borderline	Recurrent suicidal behaviour, gestures, threats or self-mutilating behaviour	.152	**.766**	.168	.065	.025
	Borderline	Affective instability due to reactivity or mood	−.003	.486	.290	.532	−.297
Self-uncertainty	Histrionic	Suggestible/easily influenced by others/ circumstances which causes stress	.046	.112	**.774**	−.138	.212
	Dependent	Needs excessive amount of advice and reassurance from others for everyday decision	.153	.142	**.736**	.193	−.022
	Borderline	Identity disturbance/unstable self-image — uncertain about expectancy of own behaviour	.359	.206	**.582**	.067	−.074
Obsessionality	Obsessive–compulsive	Rigid and stubborn	.213	−.031	−.115	**.765**	−.003
	Obsessive–compulsive	Excessive devotion to work to exclusion of leisure activities and friends	.081	.028	.091	**.706**	.294
	Obsessive–compulsive	Reluctant to delegate tasks unless they are done his/her way	−.023	.048	.258	**.537**	.391
Perfectionism	Obsessive–compulsive	Perfectionism interferes with task completion	.196	.066	−.090	.101	**.813**
	Obsessive–compulsive	Preoccupied with details, rules, lists, order, schedules, so point of activity is lost	−.001	.069	.196	.248	**.708**