



SHORT COMMUNICATION

Obesity and borderline personality symptomatology: comparison of a psychiatric versus primary care sample

RA Sansone^{1,3*}, MW Wiederman², LA Sansone³ and D Monteith[†]

¹Departments of Psychiatry and Internal Medicine at Wright State University School of Medicine in Dayton, Ohio, USA;

²Department of Human Relations at Columbia College in Columbia, South Carolina, USA; and ³Kettering Medical Center Physicians Incorporated, Dayton, Ohio, USA

This study explores the relationship between obesity and borderline personality symptomatology in two clinical settings: a psychiatric vs primary care setting. The body mass indices (BMI) of 48 women from a psychiatric outpatient setting and 83 women from a primary care setting were calculated. Each participant completed the borderline personality scale of the Personality Diagnostic Questionnaire-Revised (PDQ-R). While BMI and PDQ-R were moderately related in the psychiatric sample ($r=0.43$, $P<0.01$), there was a lack of association between these variables in the primary care sample ($r=0.04$, $P>0.05$). In conclusion, women's increasing body weight appears to have some degree of correlation to borderline personality symptomatology among psychiatric patients, whereas it apparently does not among primary care patients.
International Journal of Obesity (2001) 25, 299–300

Keywords: obesity; borderline personality

While the prevalence of psychiatric disorders appears to vary as a function of the population under study, there may be differences in the strengths of observed relationships among different populations, as well. In an effort to further understand the relationship between obesity and borderline personality symptomatology as a function of healthcare setting, we undertook a pilot study to explore these variables among women in an outpatient psychiatric setting and in a primary care setting. We specifically chose to examine borderline personality symptomatology as this particular personality disorder is characterized by chronic self-regulation difficulties. These self-regulation difficulties could manifest as impulsivity with food, which could clinically appear as binge eating or weight disorder.¹

The psychiatric sample consisted of 48 women, aged 18–56 y (mean = 32.98 y, s.d. = 9.28). The primary care sample consisted of 83 women, aged 18–50 y (mean = 32.98,

s.d. = 9.56). The majority in both the psychiatric (91.7%) and primary care (96.4%) samples were Caucasian.

For the psychiatric sample, study candidates were women who presented for initial evaluation to a university-based outpatient clinic. This clinic provides psychotherapy treatment for patients with nonpsychotic disorders as well as medication assessment of patients seen by nonphysician therapists. Of the 49 women who were approached, 48 agreed to participate, resulting in a participation rate of 98.0%.

For the primary care sample, all women who presented for nonemergent medical care at an HMO and were neither in acute medical distress nor cognitively impaired were invited to participate. Of the 88 women who were approached, 83 agreed to participate, resulting in a participation rate of 94.3%.

All participants completed the borderline scale of the PDQ-R.² This measure is an 18-item, self-report inventory that screens for borderline personality according to the criteria listed in DSM-III-R. Potential scores range from 0 to 8, with scores of 5 or higher suggesting this diagnosis.²

BMI was calculated for each woman using Quetelet's index.³ Based on self-reported weight and height, calculations indicated that a total of 17 (35.4%) women in the

*Correspondence: RA Sansone, Sycamore Primary Care Center, 2115 Leiter Road, Miamisburg, OH 45342, USA.

[†]Dr Monteith is in private practice in psychiatry.

Received 6 January 2000; revised 21 July 2000; accepted 8 August 2000

Table 1 Mean PDQ-R scores as a function of sample and obesity

	Psychiatric sample	Primary care sample
Nonobese	3.93	4.68
Obese	5.37	4.10

Note: PDQ-R=Personality Diagnostic Questionnaire-Revised.² Means have been adjusted to remove the main effect for sample.⁵

psychiatric sample and 35 (42.2%) women in the primary care sample exceeded the BMI cut-off of 27.3 used by the National Center for Health Statistics⁴ to determine obesity.

A 2 (sample) by 2 (obesity) analysis of variance (ANOVA) was performed on PDQ-R scores. Results revealed a main effect for sample ($F(1, 127) = 36.22, P < 0.001, d = 1.07$), but no main effect for obesity ($F(1, 127) = 0.60, P < 0.45, d = 0.14$). However, there was a statistically significant interaction between sample and obesity ($F(1, 127) = 8.01, P < 0.01, d = 0.50$). The mean PDQ-R scores as a function of sample and obesity are presented in Table 1 (the means have been adjusted to remove the main effects for sample⁵). Note that the obese women had markedly higher PDQ-R scores *only* in the psychiatric sample.

To evaluate this finding from another perspective, we calculated the correlation between BMI and PDQ-R score within each sample. Whereas the two variables were moderately related in the psychiatric sample ($r = 0.43, P < 0.01$), there was a lack of association between BMI and PDQ-R score in the primary care sample ($r = -0.04, P > 0.05$).

One possible explanation for the apparent relationship between obesity and borderline personality symptomatology among the psychiatric sample is weight gain due to psychotropic medication. To explore this possibility, we examined the proportion of obese and nonobese women in the psychiatric sample who indicated previous exposure to psychotropic medication as well as lithium and found that the two groups did not differ, $\chi^2(1, n = 47) = 1.42, P < 0.24$ and $\chi^2(1, n = 42) = 0.07, P < 0.80$, respectively.

Our finding, that there is no relationship between obesity and borderline personality symptomatology in the primary

care sample in contrast to a moderate relationship in the psychiatric sample, indicates that this relationship may apply to certain samples of patients. It may be that obesity, a multi-determined disorder, has more etiologic heterogeneity in a primary care setting compared with a psychiatric setting, where the self-regulatory disturbances associated with borderline personality are more likely.

This study has several limitations. First, the PDQ-R is a limited measure for borderline personality disorder, tends to be over-inclusive, and has been interpreted by us as a general measure of borderline personality symptomatology rather than the disorder itself. Therefore, we have used the term 'borderline personality symptomatology' (not disorder) throughout this paper. Second, participants provided data on their body weights and heights, neither of which were verified during the study. Third, participants reported their *current* weight, rather than *highest* weight in adulthood. Fourth, we have no information on the prevalence of mood disorders among the study samples, although the psychiatric sample is very likely to have a greater prevalence. It is possible that the subjects with mood disorders presented a distorted picture of themselves on the self-report measure for borderline personality. Finally, these data need to be confirmed through a research design entailing a structured interview or additional measures of borderline personality.

References

- 1 Sansone RA, Sansone LA, Wiederman MW. The comorbidity, relationship, and treatment implications of borderline personality and obesity. *J Psychosom Res* 1997; **43**: 541–543.
- 2 Hyler SE, Rieder RO. *Personality Diagnostic Questionnaire-Revised (PDQ-R)*. New York State Psychiatric Institute: New York; 1987.
- 3 Garrow JS, Webster J. Quetelet's index (W/H^2) as a measure of fatness. *Int J Obes* 1985; **9**: 147–153.
- 4 Najjar MF, Rowland M. *Anthropometric reference data and prevalence of overweight: United States, 1976–1980*. Vital and Health Statistics, series 11, no. 238, PHS Publication No. 87-1688. Department of Health and Human Services: Hyattsville, MD; 1987.
- 5 Harwell M. Misinterpreting interaction effects in analysis of variance. *Measurement Eval Counsel Dev* 1998; **31**: 125–136.

