Author/s:
Smith, KE;Mason, TB;Murray, SB;Griffiths, S;Leonard, RC;Wetterneck, CT;Smith, BER;Farrell, NR;Riemann, BC;Lavender, JM

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Male Clinical Norms and Sex Differences on the Eating Disorder Inventory (EDI) and Eating Disorder Examination Questionnaire (EDE-Q)

Kathryn E. Smith, Ph.D.,[a,b] Tyler B. Mason, Ph.D.,[a,b] Stuart B. Murray, Ph.D.,[c] Scott Griffiths, Ph.D.,[d,e] Rachel Leonard, Ph.D.,[f] Chad Wetterneck, Ph.D.,[f] Brad Smith, M.D.,[f] Nicholas Farrell, Ph.D.,[f] Bradley C. Riemann, Ph.D.[f] Jason M. Lavender, Ph.D.[g]

[a] Neuropsychiatric Research Institute, Fargo, North Dakota

[b] University of North Dakota School of Medicine and Health Sciences, Department of Psychiatry and Behavioral Science, Fargo, North Dakota

[c] School of Medicine, University of California San Francisco, San Francisco, California

[d] Research School of Psychology, Australian National University, Australia

[e] Centre for Applied Psychology, University of Canberra, Australia

[f] Rogers Memorial Hospital, Oconomowoc, Wisconsin

[g] Department of Psychiatry, University of California, San Diego, La Jolla, California

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*Correspondence to: Kathryn Smith, Ph.D., E-mail: ksmith@nrifargo.com

Running Head: MALE ED SYMPTOMS

Abstract

Objective: Evidence indicates that males account for a significant minority of patients with eating disorders (EDs). However, prior research has been limited by inclusion of small and predominantly non-clinical samples of males. This study aimed to (1) provide male clinical norms for widely used ED measures (Eating Disorder Examination-Questionnaire [EDE-Q] and Eating Disorder Inventory-3 [EDI-3]) and (2) examine sex differences in overall ED psychopathology. **Method:** Participants were 390 male and 1,501 female patients with an ED diagnosis aged 16 years and older who completed the EDE-Q and EDI-3 upon admission to a residential or partial hospital ED treatment program. **Results:** Normative data were calculated for the EDE-Q (global and subscales) and the EDI-3 (drive for thinness, body dissatisfaction, and bulimia). Analyses of variance (ANOVAs) used to examine sex, ED diagnosis, and their interaction in relation to overall ED psychopathology revealed a consistent pattern of greater severity among females for ED psychopathology. **Discussion:** The current study provides clinical norms on the EDE-Q and the EDI-3 for males with clinically diagnosed EDs. It is unclear whether the greater severity observed in females reflects qualitative differences in ED presentation or true quantitative differences in ED severity. Additional research examining the underlying nature of these differences and utilizing male-specific ED measures with clinical samples is warranted.

Keywords: norms, eating pathology, men, assessment, measurement, sex differences

1 Introduction

Despite a growing recognition that males represent a substantial minority of individuals with clinically significant eating disorder (ED) psychopathology, the relevant literature in this area has notable limitations. Perhaps of greatest concern is the predominance of non-clinical samples of males, as well as the tendency for studies of males with clinical EDs to be characterized by small sample sizes. One important consequence of this limitation is a lack of normative data for widely used measures of ED psychopathology that are applicable to males, especially for those receiving ED treatment. This is particularly concerning given that norms established for other populations, including females with EDs, may not generalize to males with EDs (Murray, Griffiths, & Mond, 2016). Although it is well-documented that the prevalence of EDs in males is lower than in females (Duncan, Ziobrowski, & Nicol, 2017), data regarding the degree to which males and females with EDs differ in symptom severity in ED treatment settings remains sparse. Importantly, evidence suggests that (1) ED behaviors may be increasing at a faster rate in males relative to females (Mitchison, Hay, Slewa-Younan, & Mond, 2014); (2) medical complications are particularly marked in males with EDs (Vo, Lau, & Rubenstein, 2016), and (3) males present for ED treatment across the spectrum of care, from outpatient to higher levels including partial hospitalization, residential, and inpatient (Weltzin et al., 2012). Establishing male clinical norms on measures of ED psychopathology that are widely used in clinical and research contexts is important in order to enhance the validity and clinical utility of the scores and associated interpretations obtained via such measures.

A clear pattern of evidence indicates that males from various community samples report lower scores on continuous ED measures compared to females. For example, males in high school and university samples reported lower Eating Disorder Examination-Questionnaire (EDE-Q;

Fairburn & Beglin, 1994) global and subscale scores (Lavender, De Young, & Anderson, 2010; Reas, Øverås, & Rø, 2012) compared to non-clinical female samples (Luce, Crowther, & Pole, 2008; Mond, Hay, Rodgers, & Owen, 2006; Welch, Birgegård, Parling, & Ghaderi, 2011). Lower EDE-Q global and subscales scores among male versus female adolescents from general populations samples have also been reported (Mantilla & Birgegård, 2016; Mond et al., 2014). Notably, preliminary research with newer ED measures developed and/or validated with male samples has also revealed a similar pattern of findings. For instance, an examination of sex differences among college men and women on the Eating Pathology Symptoms Inventory (EPSI; Forbush et al., 2013) revealed that women reported higher scores on all scales, with the exceptions of Excessive Exercise, Muscle Building, and Negative Attitudes toward Obesity, for which men evidenced higher scores (Forbush, Wildes, & Hunt, 2014).

In clinical samples, limited research has compared scores on ED measures between males and females. Three recent studies reporting EDE-Q scores for clinical samples of adolescent and adult males with EDs (Dahlgren, Stedal, & Rø, 2017: *n*=47; Jennings & Phillip, 2017: *n*=38; Mantilla & Birgegård, 2016: *n*=62) reported global and subscale scores that were higher than those observed in male community samples (Lavender et al., 2010) and more comparable, albeit still lower, than female clinical norms (Welch et al., 2011). Research using male-specific ED measures has also produced similar findings. For instance, in a sample of males and females in residential treatment (some of whom were diagnosed with EDs), both Eating Disorder Assessment for Men (EDAM; Stanford & Lemberg, 2012) and Eating Disorder Inventory (EDI) composite scores predicted ED diagnoses in males, yet females scored significantly higher on both measures compared to males. Of note, few studies have distinguished between ED diagnostic groups when assessing sex differences. Evidence suggests that females with AN, BN, and BED

report greater severity across several cognitive and behavioral ED domains (Dahlgren et al. 2017; Darcy et al., 2012; Shingleton, Thompson-Brenner, Thompson, Pratt, & Franko, 2016), though findings in AN have not been entirely consistent (Welch, Ghaderi, & Swenne, 2015).

Taken together, evidence thus suggests that, compared to females, males report less severe overall ED psychopathology. However, this literature consists of a limited number of studies, few of which have evaluated samples of males with clinically diagnosed EDs, and even fewer with sample sizes reasonable for establishing useful clinical norms for this population. Thus, the present study examined sex differences in ED psychopathology among males and females with EDs who were admitted for ED treatment in a partial hospitalization or residential setting. First, we aimed to present male clinical norms for the EDE-Q (Fairburn and Beglin, 1994) and EDI-3 (Garner, 2004). Establishing these norms provides for more accurate and valid interpretation of scores on these widely used measures for both research and clinical purposes (e.g., treatment planning and monitoring progress when working with male patients with EDs). Second, we compared males and females on measures of ED psychopathology. Notably, significantly lower scores among males receiving ED treatment at a similar level could indicate that these measures do not fully capture domains of greatest relevance to males with EDs, which could lend further support for the use of male-specific ED measures. Finally, to determine whether sex differences might differ across ED diagnoses, we examined ED diagnosis as a moderator of the relationships between sex and severity of ED psychopathology.

2 Methods

2.1 Participants and Procedure

Participants were 2,790 consecutively admitted patients at Rogers Memorial Hospital's residential and partial hospital ED programs treated between 2002 and 2015. However, this

investigation included only participants ≥ 16 years of age who had data for at least one of the primary measures, resulting in a final sample size of 1,873 (386 males and 1,487 females; see Table 1 for demographics). Upon admission, participants completed a series of self-report questionnaires assessing ED psychopathology. Demographics and *DSM-IV-TR* (American Psychiatric Association, 2000) ED diagnoses, which were made by psychiatrists based on clinical interviews, were obtained from medical records. The Human Subjects Committee at Rogers Memorial Hospital reviewed and approved the procedure for recruitment and data collection.

2.2 Measures

Eating Disorder Examination-Questionnaire 4 (EDE-Q4; Fairburn & Bèglin, 1994)**.** The EDE-Q4 consists of 36 items assessing attitudes and behaviors associated with EDs focused on the previous 28 days. The measure yields a Global scale and four subscales (Restraint, Eating Concern, Weight Concern, and Shape Concern). Items comprising the Global scale and subscales are rated on a 0-6 scale, with higher scores reflecting greater severity. In the current study, Cronbach's alpha for the Global and subscale scores ranged from .79 to .96 for the total sample, .81 to .96 for males, and .77 to .95 for females

Eating Disorder Inventory-3 (EDI-3; Garner, 2004). The EDI-3 is a 91-item self-report questionnaire that assesses the presence of ED psychopathology and related features, and consists of twelve primary scales (i.e., Drive for Thinness, Bulimia, Body Dissatisfaction, Low Self-Esteem, Personal Alienation, Interoceptive Deficits, Interpersonal Insecurity, Interpersonal Alienation, Emotional Dysregulation, Perfectionism, Asceticism, and Maturity Fears). Items are rated on a 6-point Likert-type scale (*always, usually, often, sometimes, rarely*, or *never*), but scores are calculated using a 0-4 scale, with higher scores representing more severe symptoms.

2.3 Data Analyses

Normative data (including means, standard deviations, and percentiles) for the EDE-Q (global and subscale scores) and EDI-3 (core ED risk scales: drive for thinness, body dissatisfaction, bulimia) were calculated for males. A series of analysis of variance (ANOVA) models were then used to examine sex, diagnosis, and their interaction in relation to ED psychopathology (EDE-Q and EDI-3). Tukey's post-hoc pairwise comparisons were used to examine significant group differences. Missing data were handled through pairwise deletion. We report ANOVA models in the paper (i.e., no covariates). Results from analysis of covariance (ANCOVA) models adjusted for body mass index and age are reported in the online supplement.

3 Results

3.1 Normative and Descriptive Data by Sex and ED Diagnosis

Table 2 presents normative data for the EDE-Q and core EDI-3 scales for males. Tables 3 and 4 present additional EDE-Q and the EDI-3 descriptive data for male and females across ED diagnoses.

3.2 Sex and ED Diagnostic Group Differences on ED Psychopathology

There was a significant main effect of sex for EDE-Q Global, $F(1, 1805) = 112.45$, $p < .001$, partial $\eta^2 = .06$; a significant main effect for diagnosis, $F(3, 1805) = 44.34$, $p < .001$, partial $\eta^2 = .03$; but no interaction, $F(3, 1805) = 1.52$, $p = .53$, partial $\eta^2 = .001$. Females ($M = 4.01$, $SD = 1.43$) scored higher than males ($M = 3.02$, $SD = 1.64$) on the EDE-Q Global. Post-hoc comparisons showed that patients with (1) AN-R ($M = 3.32$, $SD = 1.62$) scored lower on the EDE-Q Global than patients with AN-BP ($M = 3.87$, $SD = 4.10$), BN ($M = 4.11$, $SD = 1.33$) and EDNOS ($M = 3.77$, $SD = 1.60$), (2) patients with EDNOS scored lower than patients with AN-BP and BN, and (3) patients with AN-BP and BN did not differ from one another.

There was a significant main effect of sex for the EDI-3 Total, $F(1, 1548) = 116.67$, $p < .001$, partial $\eta^2 = .07$, but no significant main effect of diagnosis, $F(3, 1548) = 0.85$, $p = .47$, partial $\eta^2 = .002$ and no interaction, $F(3, 1548) = 0.16$, $p = .92$, partial $\eta^2 < .001$. Females ($M = 148.76$, $SD = 24.95$) scored higher than males ($M = 130.38$, $SD = 29.92$) on the EDI-3 Total.

4 Discussion

The present study reports on data from a large sample of males clinically diagnosed with EDs who were admitted to residential and partial hospitalization programs. The results provide clinical norms for males on two widely used measures of ED symptoms (i.e., EDE-Q and EDI-3), and results indicated that males' scores were generally lower than those of females in this study, as well as previously published female norms. As expected, the current male norms for the EDI-3 were substantially higher than those reported previously for college men (Forbush et al., 2013). Similarly, male norms for the EDE-Q global and subscale scores were substantially higher than those reported for non-clinical samples of males enrolled at secondary schools and universities (Lavender et al., 2010; Mond et al., 2014; Reas et al., 2012). The EDE-Q norms were also slightly lower than means reported in much smaller studies of males from inpatient (Jennings & Phillips, 2017) and mixed inpatient and outpatient samples (Dahlgren et al., 2017), yet the current study means were higher than those reported for adolescent males from ED treatment centers (Mantilla & Birgegård, 2016); such differences may be due in part to the different level of care across the studies, and/or lower levels of severity among younger males with EDs.

With regard to sex differences, females were generally more severe in terms of overall ED psychopathology. Males evidenced lower EDE-Q and EDI scores compared to females in the present study, and were generally lower compared to published female norms in clinical ED

samples (Aardoom, Dingemans, Slof Op't Landt, & Van Furth, 2012; Clausen, Rosenvinge, Friborg, & Rokkedal, 2011). This may suggest that females presenting for partial or residential treatment exhibit more severe ED psychopathology, particularly in domains involving weight and shape concerns.

Alternatively, these findings may reflect differences in how ED symptoms manifest in males and females, as well as in how they are assessed. Although widely used and well-validated, the measures administered in the current study were developed to assess traditional ED psychopathology domains, which may neglect ED-related symptoms that are more likely to manifest in males (e.g., muscularity-oriented concerns). This may result in measurement biases and apparent differences in overall ED severity (Griffiths, Murray, & Touyz, 2013; Murray et al., 2016). That is, the lower self-reported symptom severity among male patients with EDs in this intensive treatment program may reflect the insensitivity of symptom measures in male patients, leading to a propensity for the symptomatology of male patients to appear less severe. Indeed, traditional ED measures such as the EDE-Q and EDI may not fully capture domains of relevance to the overall severity of ED psychopathology among males. Indexing ED symptom severity with measures not developed specifically for use in male samples may inflate the possibility of 'false negative' findings, and contribute to the under diagnosis of male patients with EDs.

Regardless of the source of the observed sex differences in ED psychopathology, these findings have relevant clinical implications. Given that all participants were receiving a higher level of ED treatment (i.e., residential or partial hospitalization programs), it may be assumed that all patients were of symptom severity that would warrant such an intensive level of care. However, the lower self-reported ED severity scores among males may reflect a lower threshold of symptom severity being applied for males to be admitted to such treatment intensive

programs. This may be due in part to perceptions that ED symptoms are relatively more anomalous in males. Of note, one recent study found that EDs in males were identified with lower cut-off scores on the SCOFF (a commonly used ED screening measure) compared to the cut-off for identifying EDs in females (Liu et al., 2015), which may indicate that lower thresholds on some ED measures are appropriate for establishing clinically significant severity for males. It is not clear, however, whether the lower level of symptom severity on the EDE-Q and EDI-3 among males indicates a need for different treatment approaches, or whether the duration of treatment may vary as a function of lower reported severity on these measures. Finally, given that traditional ED measures such as the EDE-Q and EDI may not fully capture domains of relevance to the overall severity of ED psychopathology among males, supplementing such scales with male-specific measures of ED symptoms and/or related constructs (e.g., body image) may be warranted.

In addition, the sex differences in EDE-Q global and EDI-3 total scores did not vary across diagnosis, which is consistent with previous research finding no interactions between sex and diagnosis in predicting EDE-Q scores (Mantilla & Birgegård, 2016). However, there was a main effect of diagnosis for EDE-Q global scores. Individuals with anorexia nervosa-binge eating/purging type and bulimia nervosa evidenced the highest scores and did not differ from each other. This is consistent with dimensional conceptualizations of EDs that consider these presentations on a bulimic spectrum (Keel, Crosby, Hildebrandt, Haedt□Matt, & Gravener, 2013; Williamson, Gleaves, & Stewart, 2005; Wonderlich, Joiner, Keel, Williamson, & Crosby, 2007), and the finding that these disorders were generally characterized by the greatest ED symptoms is further consistent with findings suggesting the greater severity of bulimic-spectrum EDs (Keel et al., 2013). In addition, the lack of diagnostic differences in the EDI-3 suggest that

the specific cognitive domains assessed by the EDE-Q (i.e., restraint, shape, weight, and eating concerns) may be particularly salient among those with bulimic spectrum EDs.

4.1 Limitations

Certain limitations of this study should be noted. First, all diagnoses were based on clinical interviews (i.e., psychiatrist evaluations) at intake, which were not structured or based on standardized measures. As such, the interrater reliability or validity of the diagnoses could not be evaluated, and it is uncertain whether the results would replicate in other clinical samples. Relatedly, diagnoses were based on the *DSM-IV*, thus the extent to which the present findings are generalizable to *DSM-5* ED diagnoses is unclear. Second, the current study lacked measures of muscularity-oriented attitudes and behaviors; future research utilizing such measures will be needed to further clarify sex differences in the nature and severity of ED-related psychopathology. Third, the majority of participants were Caucasian, limiting the generalizability of findings to males of other racial backgrounds (Ricciardelli, McCabe, Williams, & Thompson, 2007). Fourth, the sample was treatment seeking, thus findings may not generalize to non-treatment seeking males (Griffiths et al., 2015). Moreover, males in the current study were seeking a higher level of care (i.e., partial/residential), thus the findings may differ for males seeking lower levels of care (e.g., outpatient). Fifth, item-level data were not available for the EDI-3, which precluded assessment of internal consistency. Finally, self-report measures were introduced and removed from the intake battery during the time period from which the current sample was selected. As such, the number of participants for which data were available for each measure varied.

4.2 Conclusion

The current study presents data for the largest clinical sample of males with EDs to date, and results provide clinically relevant information regarding the topography and severity of symptoms observed in males with EDs admitted for treatment. The findings also have implications for the conceptualization and future study of the ED symptoms in males. Males generally exhibited lower levels of ED symptoms than females, but it is unclear whether these differences reflect qualitative differences in ED presentation, true quantitative differences in ED severity, or a combination thereof. Future research on sex differences in severity indicators separate from core ED symptomatology (e.g., psychosocial impairment, quality of life) would be beneficial. Furthermore, additional research is needed to confirm that validity of newer ED measures in males, particularly in clinical samples, which could lend further support for administering such measures in place of the EDI-3 or EDE-Q.

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Table 1.

Participant Demographics

	Males (*n*=386)		Females (*n*= 1487)	
	M	*SD*	*M*	*SD*
Age (years)	24.23	9.41	26.87	10.48
Body Mass Index (kg/m^2)	23.73	9.78	21.80	6.96
Education (years)	13.64	2.27	13.79	2.27
	n	%	*n*	%
Diagnosis[a]				
AN-R	119	31%	348	23%
AN-BP	59	16%	253	17%
BN	102	27%	436	30%
EDNOS	101	26%	438	30%
Treatment Setting[b]				
Residential	301	78%	891	60%
Partial	84	22%	594	40%

Note. [a]Five males and 12 females were missing diagnosis; [a]One male and two females were missing treatment setting. AN-R = Anorexia Nervosa-Restricting Type; AN-BP = Anorexia Nervosa-Binge Eating/Purging Type; BN = Bulimia Nervosa; EDNOS = Eating Disorder Not Otherwise Specified.

Table 2.

EDE-Q and EDI-3 Normative Data for Males

	EDE-Q (*N* = 373)					EDI-3 (*N* = 320)		
	R	EC	WC	SC	G	DT	B	BD
Mean (SD)	2.72 (1.90)	2.58 (1.64)	3.14 (1.87)	3.66 (1.88)	3.02 (1.64)	14.44 (8.90)	9.02 (8.72)	19.88 (11.35)
Percentile								
5	0.00	0.00	0.20	0.25	0.32	0.00	0.00	2.00
10	0.20	0.25	0.40	0.75	0.66	2.00	0.00	5.00
15	0.40	0.45	0.80	1.13	0.91	3.00	0.00	8.00
20	0.60	0.80	1.00	1.50	1.23	5.00	0.00	9.00
25	1.00	1.20	1.40	2.13	1.73	7.00	1.00	12.00
30	1.40	1.40	1.80	2.48	1.96	8.00	2.00	13.00
35	1.60	1.80	2.20	3.13	2.27	9.00	2.00	14.00
40	2.00	2.00	2.40	3.50	2.65	11.60	4.00	16.00
45	2.20	2.20	3.00	3.88	2.95	13.00	5.00	17.00
50	2.60	2.60	3.40	4.13	3.18	15.00	6.00	18.00
55	3.00	2.80	3.60	4.25	3.43	16.00	8.00	20.00
60	3.20	3.20	4.00	4.63	3.67	18.00	9.40	22.00
65	3.60	3.40	4.20	4.88	3.95	20.00	12.00	23.00
70	4.00	3.60	4.40	5.13	4.21	22.00	14.00	26.00
75	4.40	3.80	4.80	5.25	4.41	23.00	16.25	29.00
80	4.80	4.20	5.00	5.50	4.65	24.00	18.00	32.00
85	5.00	4.60	5.40	5.75	4.85	24.40	21.00	35.00
90	5.20	4.80	5.60	5.88	5.13	26.00	22.70	37.00
95	6.00	5.20	6.00	6.00	5.45	27.80	25.00	39.00
99	6.00	5.85	6.00	6.00	5.75	28.00	29.00	40.00

Note. R = restraint; EC = eating concern; WC = weight concern; SC = shape concern; G = global; DT = drive for thinness; B = bulimia; BD = body dissatisfaction.

Table 3.

EDE-Q Descriptive Data for Males and Females across Diagnoses

Males	AN-R (*n* = 117)			AN-BP (*n* = 57)			BN (*n* = 100)			EDNOS (*n* = 99)			All Males (*N* = 373)		
	M	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*
R	2.38	2.00	1.93	3.30	3.00	1.84	2.90	3.00	1.78	2.60	2.40	1.96	2.72	2.40	1.90
EC	2.08	2.00	1.57	3.01	3.20	1.60	3.06	3.20	1.62	2.46	2.40	1.60	2.58	2.60	1.64
WC	2.53	2.20	1.88	3.55	3.60	1.80	3.51	3.80	1.79	3.24	3.60	1.84	3.14	3.40	1.87
SC	3.02	3.00	1.93	4.12	4.50	1.68	4.20	4.75	1.67	3.61	4.13	1.91	3.66	4.13	1.88
G	2.50	2.13	1.69	3.50	3.57	1.57	3.41	3.54	1.52	2.97	3.18	1.58	3.01	3.18	1.63
Females	AN-R (*n* = 334)			AN-BP (*n* = 246)			BN (*n* = 419)			EDNOS (*n* = 426)			All Females (*N* = 1,425)		
	M	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*
R	3.41	3.60	1.84	3.96	4.40	1.70	3.71	4.00	1.67	3.53	4.00	1.94	3.61	4.00	1.82
EC	3.04	3.20	1.47	3.70	3.80	1.31	3.86	4.20	1.34	3.38	3.60	1.56	3.48	3.80	1.47
WC	3.68	4.00	1.69	4.39	4.80	1.53	4.53	4.80	1.39	4.25	4.80	1.71	4.20	4.80	1.62
SC	4.29	4.75	1,63	4.92	5.38	1.27	4.95	5.38	1.26	4.65	5.25	1.84	4.68	5.25	1.51
G	3.60	3.90	1.51	4.24	4.58	1.26	4.26	4.64	1.23	3.95	4.42	1.55	4.00	4.40	1.44

Note. AN-R = Anorexia Nervosa-Restricting Type; AN-BP = Anorexia Nervosa-Binge Eating/Purging Type; BN = Bulimia Nervosa; EDNOS = Eating Disorder Not Otherwise Specified; R = restraint; EC = eating concern; WC = weight concern; SC = shape concern; G = global.

Table 4.

EDI-3 Descriptive Data for Males and Females across Diagnoses

Males	AN-R (*n* = 97)			AN-BP (*n* = 46)			BN (*n* = 88)			EDNOS (*n* = 89)			All Males (*N* = 320)		
	M	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*
DT	12.05	9.00	8.84	16.63	19.00	8.23	16.38	18.00	8.42	14.16	15.00	9.09	14.44	15.00	8.90
B	2.63	1.00	3.61	9.78	9.50	7.26	15.94	17.00	8.13	8.84	6.00	8.76	9.02	6.00	8.72
BD	16.31	15.00	9.52	20.07	20.00	10.85	22.07	21.50	11.93	21.72	23.00	12.03	19.88	18.00	11.35
LSE	9.65	9.00	5.77	11.37	11.50	6.50	13.13	14.00	6.78	10.75	12.00	6.45	11.15	11.00	6.47
PA	10.39	11.00	6.16	12.54	13.00	6.33	14.15	14.00	6.66	12.07	12.00	6.22	12.20	12.00	6.46
II	9.00	8.00	6.26	9.39	9.00	6.45	10.81	12.00	6.08	9.66	9.00	6.39	9.77	9.00	6.26
IA	8.01	8.00	4.78	9.54	9.00	5.40	11.41	11.00	5.99	9.18	8.00	5.88	9.51	9.00	5.65
ID	10.35	9.00	7.43	12.78	14.00	7.53	14.36	14.00	8.69	13.43	13.00	8.54	12.66	12.00	8.24
ED	4.39	2.00	4.74	6.22	6.00	4.44	9.98	10.00	6.32	7.07	5.00	6.30	6.96	5.00	5.98
P	10.85	10.00	5.57	12.61	12.50	5.84	12.38	13.00	6.00	12.88	13.00	5.71	12.09	12.00	5.80
A	8.51	8.00	5.24	10.54	10.00	5.07	11.48	12.00	5.37	10.47	10.00	6.15	10.18	10.00	5.58
MF	11.42	11.00	7.04	12.72	12.00	7.17	11.82	10.00	7.50	9.93	10.00	6.59	11.28	10.00	7.10

Females	AN-R (n = 279)			AN-BP (n = 210)			BN (n = 375)			EDNOS (n = 370)			All Females (N = 1,234)		
	M	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*	*M*	*Mdn*	*SD*
DT	18.00	20.00	8.10	21.62	24.00	6.28	21.53	23.00	6.01	20.17	23.00	7.96	20.32	23.00	7.32
B	3.23	2.00	4.43	10.93	10.00	7.73	18.33	19.00	8.07	9.25	7.00	7.55	10.93	9.00	9.07
BD	24.98	25.00	10.88	30.56	33.50	9.51	29.88	33.00	9.37	29.65	34.00	10.80	28.80	32.00	10.42
LSE	12.57	13.00	6.49	15.12	16.00	5.82	14.08	14.00	5.85	14.05	15.00	6.11	13.90	14.00	6.10
PA	12.76	12.00	6.35	15.13	15.00	5.91	14.67	15.00	5.98	14.11	14.00	6.09	14.14	14.00	6.13
II	12.41	13.00	6.13	13.31	13.00	6.57	11.87	12.00	6.04	12.58	13.00	6.18	12.44	13.00	6.19
IA	10.26	10.00	5.47	11.57	11.00	5.49	11.69	12.00	5.22	11.33	11.00	5.44	11.21	11.00	5.40
ID	13.77	13.00	8.22	17.29	17.00	8.33	17.40	17.00	7.64	16.46	16.00	8.72	16.28	16.00	8.34
ED	5.22	4.00	4.57	7.67	7.00	5.00	9.36	9.00	6.12	7.87	6.00	6.15	7.69	7.00	5.82
P	13.59	14.00	5.79	14.12	14.00	5.77	13.53	14.00	6.10	13.57	14.00	5.91	13.65	14.00	5.91
A	11.26	11.00	5.88	13.39	13.00	5.40	12.97	13.00	5.64	11.81	11.00	6.37	12.28	12.00	5.91
MF	10.96	10.00	6.60	10.90	10.00	6.63	11.52	11.00	6.84	11.41	10.00	7.49	11.25	10.00	6.94

Note. AN-R = Anorexia Nervosa-Restricting Type; AN-BP = Anorexia Nervosa-Binge Eating/Purging Type; BN = Bulimia Nervosa; EDNOS = Eating Disorder Not Otherwise Specified; DT = drive for thinness; B = bulimia; BD = body dissatisfaction; LSE = low self-esteem; PA = personal alienation; II = interpersonal insecurity; IA = interpersonal alienation; ID = interoceptive deficits; ED = emotional dysregulation; P = perfectionism; A = asceticism; MF = maturity fears.

Supplemental Materials: For Online Publication Only

Supplemental Table 1.

Summary of ANOVA

	df	*F*	*p*	*Partial* η^2
EDE-Q Global				.11
Gender	1	117.72	<.001	.06
Diagnosis	3	18.90	<.001	.03
Gender X Diagnosis	3	0.98	.40	.002
Age	1	0.51	.48	.000
BMI	1	6.59	.01	.004
EDI-Total				.12
Gender	1	136.32	<.001	.08
Diagnosis	3	5.80	<.001	.01
Gender X Diagnosis	3	0.21	0.89	.000
Age	1	0.02	.88	.000
BMI	1	58.60	<.001	.04

Supplemental Table 2.

Marginal Means of Sex by Diagnosis Predicting Eating Disorder Psychopathology

Measure	Sex					ED Diagnosis								
	Male		Female		*Partial* η^2	AN-R		AN-BP		BN		EDNOS		*Partial* η^2
	M	*n*	*M*	*n*		*M*	*n*	*M*	*n*	*M*	*n*	*M*	*n*	
EDE-Q Global	3.06[a]	361	4.02[b]	1416	.06	3.10[a]	453	3.90[b]	301	3.80[b]	512	3.36[c]	511	.03
EDI-3 Total	129.76[a]	307	149.65[b]	1212	.08	142.34[a]	372	144.63[a]	254	136.79[b]	452	135.05[b]	441	.01

Note. Means adjusted for age and BMI; alpha = .05; Means with the same superscript do not significantly differ