

# Emotional Inhibition and Personality Traits: A Comparison of Women with Anorexia, Bulimia, and Normal Controls

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**Background.** *Clinical experience has suggested that women with eating disorders (ED) are prone to displace negative feelings about the self onto the body. This study sought to evaluate these clinical observations by examining emotional inhibition and personality traits in women with ED.*

**Methods.** *Female inpatients and intensive outpatients diagnosed with anorexia nervosa (N = 14) or bulimia nervosa (N = 11) were compared to women without an ED (N = 31).*

**Results.** *The results of the study indicate that participants with ED inhibit their expression of both positive and negative emotions, even after controlling for neuroticism. Women with ED also reported higher levels of hostility and neuroticism. In addition, participants with ED were less aware of their inner thoughts and feelings (private self-consciousness) and had a heightened awareness of the thoughts and expectations of others (public self-consciousness). Finally, women with bulimia nervosa reported higher levels of emotional inhibition, neuroticism, public self-consciousness, and hostility when compared to women with anorexia nervosa.*

**Conclusions.** *These data suggest that individuals who are not able to identify, and consequently, express their emotions may learn to handle emotional distress, interpersonal conflicts, and unexpressed hostility by turning their expression and lack of insight inward (viz., feeling “fat”).*

**Keywords** emotional inhibition, emotional expression, eating disorders, personality, neuroticism, self-consciousness

## INTRODUCTION

In the 1970s, Bruch hypothesized that anorexia nervosa (AN) resulted from the displacement of negative feelings about the self onto the body (1,2). Her displacement hypothesis suggested that “body image dissatisfaction stems from the avoidance of expressing threatening impulses or feelings toward appropriate targets, and the redirection of such feelings to a less threatening target, the body” (3, p. 17). A key component of Bruch’s early hypothesis has been well supported in the literature; that is, women with eating disturbances experience significantly elevated levels of negative emotionality and depressive symptoms (4–6). However, the displacement of negative feelings may be just as important as negative affect, low self-esteem, and even body image (7) in the etiology of

eating problems. In this regard, several studies have documented that emotional inhibition can have negative effects on one’s health (8). What is more, writing and talking about difficult emotional experiences has been associated with improved health (i.e., improved immune functioning and decreased medical visits) (8–10).

A recent study by Hayaki, Friedman, and Brownell (7) lends support to Bruch’s hypothesis. This study found that women with increased body dissatisfaction also tended to have higher levels of emotional inhibition. These results were obtained even after controlling for the effects of body mass index (BMI), non-assertiveness, and depressive symptoms. Other recent studies have shown that women and adolescents with AN inhibit their expression of negative emotions (3,11). Geller and colleagues (3) hypothesize that this relationship is due to the perfectionist traits that characterize women with AN. Geller et al. (3) argue that self-presentational dimensions of perfectionism may be a contributor to emotional inhibition.

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In other words, women with AN may believe that expressing negative feelings and emotions reflects a character flaw. Thus, to avoid looking imperfect, they “will avoid expressing negative experiences and emotions at all costs” (3, p. 10).

In fact, a hallmark of AN is a strong desire for personal perfection (12). For instance, personality inventories measuring the Big Five personality traits in women with AN and bulimia nervosa (BN) have shown significant elevations on conscientiousness. What is more, perfectionism has been shown to be a precursor to AN and BN, and is even present in relatives of women with eating disorders (13–16).

This desire for perfection often manifests itself as an over-concern with physical appearance and a heightened awareness of the evaluations and expectations of others (17). However, this awareness of one’s public self goes beyond characteristic body image disturbances. In fact, women with BN have been shown to have elevated public self-consciousness scores (PUBSC) when compared to normal controls, non-clinical participants with disturbed eating, and individuals with panic disorder (17,18). We currently lack definitive information about self-consciousness in women with AN, however. Only one study has examined self-consciousness in women with AN; it found evidence for elevated PUBSC (19).

In the present study, we are interested in examining both conscientiousness and public self-consciousness in women with AN. In this regard, it should be noted that Geller et al. (3) included a measure called the Perfectionistic Self-Presentation Scale (PSPS) (20) in their study. The PSPS assesses the desire to present oneself as perfect to others. However, we decided to measure public self-consciousness instead because it appears that (a) an awareness of and (b) concern over others’ evaluations is the actual construct of interest. In addition, the PSPS possesses only minimal convergent and discriminant validity, which is another reason to measure public self-consciousness instead of the PSPS.

A further purpose of the present study is to examine anger and hostility in relation to emotional inhibition. Recent studies have shown that women and adolescents with AN inhibit their expression of negative emotions, specifically anger (3,11). What is more, women with high levels of anger suppression are more likely to be dissatisfied with their bodies (3). However, previous studies concerning anger suppression/emotional expression in women with AN relied on the State-Trait Anger Expression Inventory (STAXI) (21). The STAXI is a well-known measure of anger expression (Anger-Out) and anger suppression (Anger-In). In spite of being a widely used inventory, however, recent studies have found that the Anger-In and Anger-Out scales primarily assess the broad traits of neuroticism and agreeableness (22). Therefore, because we feel the expression/suppression of anger is an interesting dimension, we chose to use a more differentiated measure with better construct validity, the Anger Questionnaire (AQ) (23). By using the AQ, hostility and anger can be looked at separately and also in relation to several other personality and emotionality traits (e.g., neuroticism and agreeableness).

The present study has several goals, including (a) To further examine emotional inhibition in a clinical sample of eating disordered women, (b) To determine how conscientiousness and public self-consciousness are related to emotional inhibition, and (c) To examine hostility and anger in relation to emotional inhibition, neuroticism, and agreeableness. Based on the evidence reviewed earlier, we hypothesized that women with eating disorders (ED) will have significantly higher levels of emotional inhibition than normal controls. Finally, we posited that women with high levels of emotional inhibition would have higher levels of conscientiousness, public self-consciousness, and hostility. No *a priori* predictions regarding differences between AN and BN were made.

## METHODS

### *Participants and Procedure*

Participants in the clinical group ( $N = 25$ ) were patients in various stages of treatment for either AN ( $N = 14$ ) or BN ( $N = 11$ ). Participants were recruited from Iowa Lutheran Hospital’s Intensive Outpatient and The University of Iowa Hospitals and Clinic’s Inpatient Eating Disorders Units. ED diagnoses were made by clinic staff and determined through hospital chart reviews. In addition, the Eating Attitudes Test-26 (24) and the Bulimia Test (25) were used in order to confirm chart diagnoses. Participants were approached individually by the principal investigator and completed the questionnaires at their convenience. Participants gave written informed consent according to the protocols established by the University of Iowa and Iowa Lutheran Hospital Institutional Review Boards (IRB).

Normal controls ( $N = 31$ ) were female undergraduate students enrolled in an elementary psychology course at the University of Iowa. Students participating in this study received 1 credit toward the fulfillment of their course research requirement. Participants in this sample were excluded from the present study if they endorsed a current or life-time history of self-induced vomiting, binge eating, or diuretic use. As a result, four participants were excluded from the present study. Participants completed the questionnaires during one of several small group-testing sessions. All participants gave written informed consent according to the protocols established by the University of Iowa Institutional Review Board.

### *Assessments*

All participants completed a battery of self-report instruments, including the following assessments:

EAT-26. The Eating Attitudes Test (EAT-26) (24) is a 26-item inventory designed to measure the symptoms of AN. Ratings are made on a 6-point scale, ranging from 6 (always) to 1 (never). The EAT-26 consists of five subscales: Drive for

Thinness and Dieting, Food Preoccupation and Binge Eating, Avoidance of Fattening and Sweet Foods, Vomiting, and Social Pressure to Eat. For the purposes of the present study, only the total score was examined. The EAT-26 was used in this study as a tool to screen for severe eating pathology in the sample of normal controls. In addition, the responses of women with ED were examined to verify diagnoses. The EAT-26 is a reliable and valid instrument that correlates well with other standardized eating disorder inventories (24,26).

**BULIT-R.** The Bulimia Test (BULIT-R) is a 28-item self-report screening measure for the detection of bulimia nervosa (25). Ratings are made on a multiple-choice scale based on the DSM-III-R criteria for Bulimia Nervosa. The BULIT-R has been shown to have good concurrent validity and sensitivity (27). Similar to the EAT-26, the BULIT-R was administered as both a screening tool in the sample of normal controls and to confirm diagnoses in the sample of women with ED.

**AEQ.** The Ambivalence Over Emotional Expression Questionnaire (AEQ) (28) is a 27-item questionnaire that measures both inhibition of—and rumination over—emotions. The rating scale for the questionnaire ranges from 1 (I never feel this way) to 5 (I usually feel this way). Although the AEQ usually is thought of as uni-dimensional, two large factors have emerged (28): Ambivalence over the expression of positive emotions (e.g., “I want to tell someone when I love them, but it is difficult to find the right words”) and Entitlement (e.g., “After I express anger at someone it bothers me for a long time”). Entitlement contains items pertaining to ambivalence over the expression of negative emotions, including anger, pride, and jealousy. However, due to the high correlation between the two subscales ( $r = .79$ ), only a single global score was examined in the present study. The AEQ has been shown to be negatively correlated with self-reported and peer-rated emotional expressiveness (28).

**PPSC.** The Public and Private Self-Consciousness Questionnaire (PPSC) is a 23-item questionnaire which measures various aspects of self-consciousness (29). Responses to this questionnaire are recorded on a 5-point scale, ranging from 0 (very unlike me) to 4 (very like me). The PPSC consists of three sub-scales/factors: Public Self-Consciousness, Private Self-Consciousness, and Social Anxiety. The Public Self-Consciousness subscale contains 7 items designed to measure the awareness of the self as a social object (e.g., “I’m very concerned about the way I present myself”). The Private Self-Consciousness factor contains 10 items assessing how attuned one is to his/her inner thoughts and feelings (e.g., “I reflect about myself a lot”). The third factor, Social Anxiety, consists of 6 items designed to measure discomfort in the presence of others (e.g., “I feel anxious when I speak in front of a group”).

**BFI.** The Big Five Inventory (BFI) (30) consists of 44 items measuring the five general traits comprising the five-factor model of personality. Responses to each question are recorded on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The BFI consists of five broad scales: Openness, Conscientiousness, Extraversion, Agreeableness,

and Neuroticism. These five dimensions have consistently emerged in factor analyses of both self- and peer-rated personality (31). Further, the BFI is a widely used and psychometrically sound measure with good reliability and validity (32). The BFI contains 8-item scales assessing Neuroticism and Extraversion, a 10-item measure of Openness, and 9-item scales for Agreeableness and Conscientiousness.

**AQ.** The Aggression Questionnaire (AQ) is a 29-item self-report questionnaire that measures personality traits related to aggression and hostility (23). Responses to this questionnaire are recorded on a 5-point scale, ranging from 1 (very unlike me) to 5 (very like me). The AQ consists of four subscales, two of which were used for the present study. The Anger subscale consists of 7 items designed to assess the emotional or affective component of anger (e.g., “I flare up quickly but get over it quickly”). The Hostility subscale consists of 11 items designed to measure feelings of ill will and injustice (e.g., “I am sometimes eaten up with jealousy”).

## RESULTS

The mean age of participants in the clinical group was 30.16 ( $SD = 10.43$ ,  $range = 17-53$ ). Participants self-reported the following ethnic identities: Caucasian (96%) and Asian American (4%). With regard to education, the large majority of the clinical participants (87.1%) had completed at least some college. The average participant age for the control group was 19.81 ( $SD = 2.93$ ,  $range = 18-30$ ). Control participants self-reported the following ethnic identities: Caucasian (93.6%) and African American (6.4%). As expected, women with eating disorders scored significantly higher on measures of eating pathology (i.e., BULIT-R and EAT-26; see Tables 1 and 2). Furthermore, the clinical patients ( $M = 2.90$ ,  $SD = 1.95$ ) reported significantly more lifetime hospitalizations for psychological problems than did the control group ( $M = 0.48$ ,  $SD = 1.06$ ;  $t = 5.20$ ,  $p < .01$ , two-tailed). It is noteworthy, however, that the AN patients ( $M = 3.17$ ,  $SD = 1.95$ ) and the BN patients ( $M = 2.56$ ,  $SD = 2.01$ ) did not differ in the number of lifetime hospitalizations ( $t = 0.70$ , n.s.).

To further characterize our samples, we computed body mass index (BMI) scores for each participant (BMI data were unavailable for two control participants, two AN participants, and one BN participant). An independent samples  $t$  test indicated that the control participants ( $M = 23.67$ ,  $SD = 5.38$ ) had significantly higher BMI scores than the clinical patients ( $M = 19.75$ ,  $SD = 5.40$ ;  $t = 2.58$ ,  $p < .05$ , two-tailed). A follow-up analysis revealed that this effect was entirely due to the AN patients, who had significantly lower BMI scores ( $M = 16.74$ ,  $SD = 2.42$ ) than the BN group ( $M = 23.36$ ,  $SD = 5.86$ ;  $t = 3.35$ ,  $p < .01$ , two-tailed).

Next, independent  $t$  tests were used to compare group means for controls and women with ED on the personality and eating pathology measures. As shown in Table 1, women with ED had significantly higher levels of emotional inhibition.

**Table 1** Mean Scores for Women with ED and Controls

Measures	ED		Controls		<i>t</i>	<i>d</i>
	M	(SD)	M	(SD)		
<i>BFI</i>						
Neuroticism	33.5	(4.0)	23.6	(6.0)	-6.97***	-1.38
Extraversion	22.0	(8.3)	27.8	(6.7)	2.88**	0.73
Conscientiousness	32.4	(5.3)	32.8	(5.7)	0.27	0.07
Agreeableness	36.1	(5.3)	35.5	(5.5)	-0.43	-0.11
Openness	33.7	(7.3)	33.8	(8.0)	0.06	0.01
<i>BULIT-R</i>	90.6	(28.9)	63.3	(24.9)	-3.80***	-0.92
<i>EAT-26</i>	41.7	(14.8)	15.0	(13.8)	-6.98***	-1.38
<i>PPSC</i>						
Social anxiety	16.3	(6.9)	13.9	(5.7)	-1.41	-0.38
PRIVSC	22.2	(4.8)	25.0	(5.5)	2.00*	0.53
PUBSC	23.1	(3.4)	20.3	(5.9)	-2.11*	-0.55
<i>AEQ</i>	102.3	(15.4)	73.3	(16.6)	-6.71***	-1.34
<i>AQ</i>						
Anger	17.3	(5.6)	16.8	(5.3)	-0.38	-0.09
Hostility	28.5	(6.2)	21.1	(7.3)	-4.00***	-0.96

Note. ED = eating disorder; BFI = Big Five Inventory; PPSC = Public and Private Self-Consciousness; PRIVSC = Private Self-Consciousness; PUBSC = Public Self-Consciousness; AEQ = Ambivalence Over Emotional Expression Questionnaire; AQ = Anger Questionnaire.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$  for differences between the indicated control group and ED group.

**Table 2** Mean Scores for Women with AN and BN

Measures	AN		BN		<i>t</i>	<i>d</i>
	M	(SD)	M	(SD)		
<i>BFI</i>						
Neuroticism	31.8	(4.1)	35.6	(2.8)	-2.64**	-0.95
Extraversion	20.0	(8.1)	24.6	(8.1)	-1.42	-0.55
Conscientiousness	32.7	(4.7)	32.1	(6.1)	0.29	0.11
Agreeableness	36.8	(5.5)	35.3	(5.2)	0.70	0.28
Openness	35.4	(6.4)	31.5	(8.1)	1.35	0.53
<i>BULIT-R</i>	74.8	(23.2)	110.6	(22.7)	-3.87***	-1.24
<i>EAT-26</i>	40.9	(17.1)	42.7	(11.9)	-0.30	-0.12
<i>PPSC</i>						
Social anxiety	16.2	(7.9)	16.4	(5.9)	-0.08	-0.03
PRIVSC	21.8	(4.9)	22.8	(4.8)	-0.53	0.21
PUBSC	21.9	(3.0)	24.6	(3.4)	-2.10*	-0.79
<i>AEQ</i>	95.2	(16.1)	111.4	(8.4)	-3.01***	-1.05
<i>AQ</i>						
Anger	16.2	(5.3)	18.8	(5.9)	-1.16	-0.46
Hostility	25.4	(5.6)	32.4	(4.8)	-3.27**	-1.13

Note: AN, BN = anorexia nervosa and bulimia nervosa, respectively; BFI = Big Five Inventory; PPSC = Public and Private Self-Consciousness; PRIVSC = Private Self-Consciousness; PUBSC = Public Self-Consciousness; AEQ = Ambivalence Over Emotional Expression Questionnaire; AQ = Anger Questionnaire.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$  for differences between the AN group and BN group.

In addition, it is interesting to note that women with ED had higher scores on the AQ Hostility scale, but not on the Anger scale. Women with an ED diagnosis also evidenced higher

levels of public self-consciousness (PUBSC) and neuroticism. Finally, women with an ED diagnosis had significantly lower scores on private self-consciousness (PRIVSC) and extraversion.

Due to small sample sizes in the ED sample, we were interested in the effect that eating disorder diagnosis and type had on various personality and emotionality traits. Thus, Cohen's *d* was calculated to determine the magnitude of discrepancy between means for controls and women with ED. As suggested by Cohen (33), interpretation of effect sizes as small, medium, and large effects was defined as corresponding to values of .2, .5, and .8 respectively. As shown in Table 1, large effects were found for emotional inhibition, neuroticism, and hostility; medium sized effects were found for both PUBSC and PRIVSC, as well as for extraversion. A small effect was found for social anxiety, but this difference failed to reach conventional levels of significance.

Previous studies on emotional inhibition in women with ED have controlled for depressive symptoms, non-assertiveness, and global assessment of functioning; surprisingly, the broad trait of neuroticism was not examined or controlled for in these studies. To address this issue, we computed partial correlations between group membership (coded so that a positive correlation indicates that the ED group had higher scores) and the other personality variables, controlling for neuroticism. After controlling for neuroticism, only the partial correlation with emotional inhibition remained substantial and significant ( $r = .45$ ,  $p = .001$ ); the partial correlations for hostility ( $r = .05$ ,  $p = .711$ ), social anxiety ( $r = .08$ ,  $p = .543$ ), public self-consciousness ( $r = .22$ ,  $p = .110$ ), and private self-consciousness ( $r = -0.08$ ,  $p = 0.576$ ) all were non-significant. Anger, however, had a small partial correlation that was marginally significant ( $r = -0.26$ ,  $p = 0.052$ ). These results are noteworthy, because they indicate that the elevated levels of emotional inhibition in the ED patients are not simply due to their greater neuroticism.

Independent *t* tests were again used to compare group means for women with AN versus women with BN. As expected, women with BN had higher scores on the BULIT-R. As is shown in Table 2, women with BN had higher levels of emotional inhibition, neuroticism, hostility, and PUBSC. When women with a diagnosis of AN were compared to women with BN, the following effects were found: Large effects were found for emotional inhibition, hostility, and neuroticism. Medium effects were found for PUBSC, extraversion and openness. In addition, small effects were found for agreeableness, PRIVSC, and anger.

Finally, Pearson's *r* was calculated to examine relationships between various personality and emotionality traits in control participants and women with eating disorders. As previously mentioned, we hypothesized that emotional inhibition would be associated with high levels of conscientiousness, PUBSC, hostility, and anger. We were also interested in examining the relationships between anger and agreeableness and neuroticism and hostility.

In the control group, the following results were found (see Table 3): (a) Emotional inhibition was significantly related to PUBSC, social anxiety, and hostility, (b) Anger was

**Table 3** Intercorrelations Between Measures for Controls and Women with Eating Disorders

Measures	1	2	3	4	5	6	7	8	9	10	11
<i>BFI</i>											
1. Neuroticism	–	–.09	–.00	–.62	–.55	.01	–.29	–.14	.18	.41	.53
2. Extraversion	.00	–	.23	.08	–.10	–.69	.32	.03	–.26	–.10	–.16
3. Openness	–.20	.18	–	.07	.03	–.12	.38	–.26	–.16	.11	.02
4. Agreeableness	.01	.34	–.01	–	.64	.04	.33	.18	.00	–.70	–.45
5. Conscientiousness	–.00	.18	.26	.41	–	.25	.09	.15	.14	–.25	–.14
<i>PPSC</i>											
6. Social anxiety	.20	–.71	–.20	–.14	–.30	–	–.40	.19	.47	.07	.41
7. PRIVSC	.06	.33	.44	.18	.35	–.16	–	–.10	–.29	–.26	–.44
8. PUBSC	.35	–.27	.15	–.38	–.11	.41	–.01	–	.45	–.22	.22
<i>AEQ</i>											
9. AEQ total	.43	–.06	–.02	–.20	–.17	.30	.13	.45	–	.12	.71
<i>AQ</i>											
10. Anger	.45	.23	–.19	–.13	–.48	.04	–.40	.05	.20	–	.56
11. Hostility	.48	–.07	–.27	–.24	–.35	.32	.02	.25	.64	.37	–

*Note.* The upper and lower triangles correspond to the Control and Eating Disorder Group, respectively. Correlations of  $|\geq .37|$  and greater are significant at  $p < .05$ , two-tailed. BFI = Big Five Inventory. PPSC = Public and Private Self-Consciousness, PRIVSC = Private Self-Consciousness, PUBSC = Public Self-Consciousness. AEQ = Ambivalence Over Emotional Expression Questionnaire. AQ = Anger Questionnaire.

significantly related to neuroticism, agreeableness, and hostility, (c) Hostility was significantly correlated with neuroticism, agreeableness, social anxiety, PRIVSC, emotional inhibition, and anger. Contrary to expectation, emotional inhibition was not significantly correlated with either conscientiousness or anger.

In the group of participants with eating disorders, a slightly different pattern of correlations emerged (see Table 3): (a) Emotional inhibition was significantly correlated with neuroticism, PUBSC, and hostility, (b) Anger was significantly related to neuroticism, conscientiousness, PRIVSC, and hostility, and (c) Hostility was significantly related to neuroticism, anger, and emotional inhibition. Contrary to hypotheses, conscientiousness and anger were not significantly related to emotional inhibition. In this sample, agreeableness was not significantly related to anger ( $r = -.13$ ).

## DISCUSSION

The current study shows that women with eating disorders (ED) are significantly more likely to inhibit their expression of emotions, both positive and negative. The results also suggest that women with ED have high levels of neuroticism, hostility, and public self-consciousness when compared to women without an ED. With regard to ED diagnoses, women with BN exhibited higher levels of emotional inhibition, neuroticism, hostility, and public self-consciousness when compared to women with AN.

Although non-significant, when eating disorder type was compared, women with AN evidenced higher levels of agreeableness and openness; women with AN also had lower levels of private self-consciousness and extraversion when compared to women with BN.

Taken together, these data suggest that women with a diagnosis of BN have more severe personality disturbances than women with AN. We believe that the higher neuroticism scores in women with BN may contribute to their increased personality and emotionality disturbances. For example, neuroticism is associated with a wide variety of psychopathology, including: borderline, avoidant, dependent, and compulsive personality disorders (34,35). These personality disorders, especially borderline personality disorder, are often found among women with ED (36,37).

It is also interesting to note that in the present study conscientiousness was not significantly related to emotional inhibition. This finding does not support the theory developed by Geller and colleagues (3). Geller et al. (3) hypothesize that women with AN are prone to suppress negative feelings and minimize their own needs in order to preserve their close relationships. They feel that the suppression of negative feelings is mediated by the need to be—and appear to be—perfect. However, in the present study women with AN and BN did not have high levels of conscientiousness. Instead, women with ED were less aware of their inner thoughts and feelings (private self-consciousness) and had a heightened awareness of the thoughts and expectations of others (public self-consciousness). This lack of self-awareness shows that women with ED may have a tendency to blend “real affect” with “body affect.” In other words, an individual who is not able to identify and thus express their emotions may learn to handle emotional distress, interpersonal conflicts, and unexpressed hostility by turning their expression and lack of insight inward (viz., feeling “fat”).

However, an alternative explanation might be that the ED serves as a protective mechanism, whereby the individual with an ED does not have to express their emotions and instead uses (a) social isolation, (b) bingeing and/or purging, and (c) body

dissatisfaction in order to avoid self-consciousness, both private and public. In fact, several studies have documented that women with BN report that interpersonal difficulties which cause them to focus on their social-self inadequacies, thereby increasing PUBSC, represent specific precipitants to binge-eating and purging (17,38–41).

While the current study has several strengths, some limitations should be noted. For example, our samples were not matched in terms of age. Although previous research has shown the Big Five personality traits to be relatively stable during this age range (42,43), the present sample would have ideally included controls matched by age and socio-economic status. In order to determine whether between-group differences in age may have exerted a significant influence over our study results, we computed partial correlations between group membership (coded so that higher scores indicate the presence of ED pathology) and the other variables, controlling for age. It is important to note that the partial correlations for all of the significant associations presented in Table 1 (i.e., those involving neuroticism, extraversion, the BULIT-R, EAT-26, public and private self-consciousness, the AEQ, and AQ Hostility) remained statistically significant. Thus, the interpretation of our results did not change as a result of our analyses controlling for age, suggesting that the between-group age differences did not represent an important confound in the present study.

Another limitation of the present study concerns issues related to Type I and II error. Specifically, our statistical analyses consisted of 26 t-tests and over 100 bivariate and partial correlations, which may have inflated our Type I error rate. Conversely, another limitation of the present study is that of low sample sizes and thus low power to find significant results, if they exist; this, of course, is associated with increased Type II error. In order to address these issues, we included effect sizes (see Tables 1 and 2) as well as traditional parametric analyses in order to address these competing limitations.

In addition, despite the fact that many individuals with ED have poor insight (44), all of the measures employed in the present study were based on self-report data. Thus, future studies should attempt to replicate our results by incorporating parent and/or partner ratings of emotional inhibition and personality traits.

Finally, the present study is entirely correlational in nature. It therefore does not allow causal statements to be made regarding the association between emotional inhibition and ED diagnoses.

Prospective studies are needed to determine the etiological role that emotional inhibition and self-consciousness have in various ED syndromes. Other future directions may include examining the relationships between emotional inhibition, fear of negative evaluation, and perceived fraudulence in women with AN and BN. Future studies are also needed to examine the relationship between body image, PRIVSC, and PUBSC. Based on the results of the present study it may be informative to examine avoidant personality disorder in women diagnosed

with an ED. Finally, due to the fact that social-self concerns are central to bulimic syndromes it is important to address these issues in treatment through Cognitive Behavioral and/or Interpersonal Therapy.

In conclusion, this was the first study, to date, that has examined emotional inhibition in women with BN. It was also the first study to replicate findings on PUBSC and PRIVSC in women with AN. The results of the present study indicate that women with ED inhibit their expression of both positive and negative emotions, even after controlling for neuroticism. These findings also suggest that women with a diagnosis of BN exhibit higher levels of neuroticism, emotional inhibition, and PUBSC when compared to women with AN. Thus, Bruch's displacement hypothesis is gaining increased support; indeed, women with ED have deficits in emotional expression even after controlling for self-esteem, global assessment of functioning, and neuroticism.

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