

## PERSONALITY FEATURES AND EXPRESSED CONCERNS OF ADOLESCENTS WITH EATING DISORDERS

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### ABSTRACT

Differences between adolescent females diagnosed with either anorexia nervosa ( $n = 26$ ) or bulimia nervosa ( $n = 30$ ) were investigated using the Millon Adolescent Personality Inventory (MAPI; Millon, Green, & Meagher, 1982). About half of the total sample displayed an inhibited (avoidant) personality style. Anorexics scored higher than did bulimics on the Respectful (Compulsive) personality scale. Expressed concerns over self-concept, personal esteem, and sexual acceptance were common in the total sample. The behavioral correlates of MAPI score profiles indicated that few bulimics, and none of the anorexics, were likely to exhibit problems with impulse control, societal conformity, and scholastic achievement. Results are compared with clinical observations of adolescents with eating disorders and findings for adult eating-disordered samples.

Adolescence is a turbulent time, marked by intense physical and psychological changes, and it appears that females may experience particular stressors that are less often experienced by males. For example, during adolescence females are more likely than males to experience depression (Kandel & Davies, 1982), perhaps because self-esteem is more related to weight and body shape for females than it is for males (Tobin-Richards, Boxer, & Petersen, 1983). It is during adolescence that eating disorders, phenomena occurring almost exclusively among females, often first become apparent (American Psychiatric Association, 1994; Attie, Brooks-Gunn, & Petersen, 1990; Hsu, 1989).

Personality characteristics of women with eating disorders have been the focus of much research, with an emphasis on comparison of anorexia nervosa and bulimia nervosa (see Johnson & Wonderlich, 1992, and Vitousek & Manke, 1994, for reviews). In general, those with anorexia nervosa have been characterized as reticent, introversive,

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constricted, obsessional, and compulsive, whereas those with bulimia nervosa have been characterized as relatively more social, impulsive, and affectively labile. Most research on the personality features of individuals with eating disorders has dealt with adults. The descriptions of the adolescent anorexic presented in the professional literature usually have been based on clinical experience and observation; little empirical research on adolescents with anorexia nervosa or bulimia nervosa has been conducted (Attie et al., 1990).

In one of the few empirical personality studies conducted with a sample of adolescent anorexics, Strober (1981) compared three groups of female adolescents, each having received a different psychiatric diagnosis: anorexia nervosa, affective disorder (depression or anxiety), or conduct disorder. On an objective personality measure, Strober found that the females with anorexia nervosa were more self-regulating and less demonstrative of their emotional behavior, more socially conscientious and conforming, and more inhibited interpersonally when compared with the other groups of females (see Strober, 1980, for similar results). These findings suggest that personality features of adolescents and adults with anorexia nervosa may be similar.

The implication of personality factors in the etiology and maintenance of eating disorders (Johnson & Wonderlich, 1992; Vitousek & Manke, 1994) indicates the need for research using objective measures of personality among adolescents diagnosed with these disorders. One such measure is the Millon Adolescent Personality Inventory (MAPI; Millon, Green, & Meagher, 1982), the adolescent personality test most frequently used in clinical practice (Archer, Maruish, Imhof, & Pitrowski, 1991; Craig & Horowitz, 1990). The purpose of the present study was to explore MAPI response patterns among adolescents with either anorexia nervosa or bulimia nervosa (American Psychiatric Association, 1994). Further, differences between the two diagnostic groups with regard to MAPI scores were investigated. Based on personality features demonstrated among adults with eating disorders (Johnson & Wonderlich, 1992; Vitousek & Manke, 1994), it was hypothesized that adolescents with anorexia nervosa would exhibit more inhibited, introversive personality traits, and would be more respectful and cooperative, when compared with peers with bulimia nervosa. Adolescents with bulimia nervosa were hypothesized to exhibit greater sociability, forcefulness, and affective sensitivity relative to adolescents with anorexia nervosa.

## METHOD

### *Subjects*

Research participants were 56 female adolescents, evaluated consecutively in the eating-disorders clinic at the University of Kansas School

of Medicine–Wichita, who met diagnostic criteria (American Psychiatric Association, 1994) for either anorexia nervosa (restricting type,  $n = 21$ ; binge/purge type,  $n = 5$ ) or bulimia nervosa (purging type,  $n = 24$ ; nonpurging type,  $n = 6$ ). The patients ranged in age from 11 to 17 years ( $M = 14.63$  years,  $SD = 1.37$ ); the majority (75%) were between the ages of 14 and 16 years. All but two (3.6%) were white.

### *Measures*

*Personality features and expressed concerns.* Participants completed the Millon Adolescent Personality Inventory (Millon et al., 1982), an instrument that has been well researched and widely used with adolescents in both inpatient and outpatient psychiatric settings (Cansler, 1986; Millon & Davis, 1993). It has 150 true-false items, constituting eight primary personality scales, eight scales indicative of the adolescent's expressed concerns, and four empirically derived scales indicative of behavioral correlates of the other scales (Millon et al., 1982). The psychometric properties of the MAPI generally are very good (Cansler, 1986; Millon & Davis, 1993).

The MAPI personality scales are: Introversive (Schizoid), Inhibited (Avoidant), Cooperative (Dependent), Sociable (Histrionic), Confident (Narcissistic), Forceful (Antisocial), Respectful (Compulsive), and Sensitive (Passive-Aggressive). The scales indicative of expressed concerns measure the extent to which respondents voice distress over particular areas of their lives (Self-Concept, Personal Esteem, Body Comfort, Sexual Acceptance, Peer Security, Social Tolerance, Family Rapport, and Academic Confidence). The behavioral correlates scales indicate the problems that may follow from the personality features and expressed concerns of the particular adolescent being considered; these empirically derived measures are: Impulse Control, Societal Conformity, Scholastic Achievement, and [School] Attendance Consistency.

### *Procedure*

Upon presentation at the outpatient clinic, the adolescents were assessed by a team of clinicians experienced in the evaluation and treatment of eating disorders. These assessments began with a semi-structured interview conducted by a psychologist, with the focus on the patient's current and past history of eating-disorder symptoms, weight, and food intake, as well as social and medical history. When present, family members were interviewed separately to gain further information about the patient. The assessment concluded with a second interview of the patient and her family, conducted by the staff psychiatrist.

Diagnoses were based on the face-to-face interviews and were consensually derived among the members of the clinical team using DSM-IV criteria (American Psychiatric Association, 1994). The team con-

sisted of the same psychologist and psychiatrist for all assessments; only the predoctoral intern involved varied among cases. Finally, participants completed the MAPI after diagnoses were established and before treatment was started.

## RESULTS

Given the potential for overlap among the various MAPI scales (Millon et al., 1982), multivariate analyses were performed to discern unique relationships between MAPI scores and diagnostic category. Also, given the lack of research with the MAPI among adolescents with eating disorders, it was important to explore all potential differences between the diagnostic groups. Accordingly, scores on the 20 MAPI scales were entered into a stepwise logistic regression analysis (Norusis, 1990) to predict group membership (anorexia nervosa or bulimia nervosa). The advantage of logistic regression analysis is that relationships between each predictor variable and the dependent variable can be considered while the effects of the other predictors are simultaneously controlled. The results of this analysis, revealing which MAPI scales were uniquely predictive of anorexia nervosa versus bulimia nervosa, are presented in Table 1.

Females with anorexia nervosa differed from those with bulimia nervosa on only three MAPI scales (see Table 1). Females with anorexia nervosa had higher scores on the Respectful (Compulsive) personality scale and expressed greater concern over self-concept than did females with bulimia nervosa. Females with bulimia nervosa reported greater concern over academic performance than did those with anorexia nervosa.

One consideration with MAPI scale scores pertains to clinical significance. Scores of 75 or greater are meant to be indicative of a clinically significant issue or personality feature (Millon et al., 1982). In the analyses (see Table 1), it was possible to find a statistically significant difference between anorexic and bulimic adolescents on a particular scale, while neither group consistently scored in the clinically significant range. Conversely, anorexic and bulimic adolescents may not have differed with regard to particular MAPI scales, yet a majority of both groups may have evidenced clinically significant elevation on those scales. To examine the frequency of high scores, the proportion of each group scoring 75 or greater on each MAPI scale was determined (see Table 2).

Few of the females had elevated scores on the Introversive (Schizoid), Sociable (Histrionic), or Forceful (Antisocial) personality scales. About half of the total sample scored in the clinically significant range on the

Table 1

Stepwise Logistic Regression Analysis Comparing Adolescents with Anorexia Nervosa ( $n = 26$ ) to Those with Bulimia Nervosa ( $n = 30$ )

MAPI Scale	B	S.E.	Wald	$p <$	$R$
7. Respectful (Compulsive)	-.08	.02	10.73	.001	-.34
A. Self-Concept	-.09	.03	9.60	.002	-.31
H. Academic Confidence	.15	.05	10.27	.001	.33
(Constant)	3.02	1.72	3.09	.08	

Model Chi-square = 33.07,  $p < .0001$

Goodness of Fit Chi-square = 47.15,  $p < .67$

85.7% of cases correctly classified

*Note:* MAPI = Millon Adolescent Personality Inventory (Millon et al., 1982). S.E. = Standard Error of B,  $R$  = partial correlation between predictor variable and eating disorder diagnostic group after controlling for other predictor variables (Group: 0 = anorexia nervosa, 1 = bulimia nervosa)

Inhibited (Avoidant) scale. With regard to expressed concerns, few of the adolescents in the total sample reported concern over academic confidence or social tolerance. In contrast, a majority of the patients expressed significant concern over self-concept, personal esteem, and sexual acceptance. On the behavioral correlates scales, none of the anorexics and only about one-sixth of the bulimics had scores indicative of likely problems with impulse control, societal conformity, or academic achievement.

Table 2

Percentages of Adolescents with Anorexia Nervosa ( $n = 26$ ) or Bulimia Nervosa ( $n = 30$ ) Who Scored 75 or Greater on Each of the MAPI Scales

MAPI Scale	% Anorexics	% Bulimics
<i>Personality Scales:</i>		
1. Introversive (Schizoid)	15.4	3.3
2. Inhibited (Avoidant)	46.2	50.0
3. Cooperative (Dependent)	61.5	23.3
4. Sociable (Histrionic)	19.2	13.3
5. Confident (Narcissistic)	26.9	6.7
6. Forceful (Antisocial)	3.8	23.3
7. Respectful (Compulsive)	65.4	33.3
8. Sensitive (Passive-Aggressive)	30.8	63.3
<i>Expressed Concerns:</i>		
A. Self-Concept	53.8	56.7
B. Personal Esteem	53.8	70.0
C. Body Comfort	42.3	70.0
D. Sexual Acceptance	61.5	60.0
E. Peer Security	46.2	56.7
F. Social Tolerance	7.7	23.3
G. Family Rapport	15.4	40.0
H. Academic Confidence	7.7	16.7
<i>Behavioral Correlates:</i>		
SS. Impulse Control	0.0	16.7
TT. Societal Conformity	0.0	16.7
UU. Scholastic Achievement	0.0	16.7
WW. Attendance Consistency	34.6	36.7

## DISCUSSION

Based on personality features demonstrated among adults with eating disorders (Johnson & Wonderlich, 1992; Vitousek & Manke, 1994), it was hypothesized that adolescents with anorexia nervosa would exhibit more inhibited, introversive personality traits and would be more respectful and cooperative, whereas adolescents with bulimia nervosa were expected to exhibit greater sociability, forcefulness, and affective sensitivity. Instead, an inhibited (avoidant) personality style was found for about half of the adolescents, with the two diagnostic groups not differing significantly. Those with high scores on this scale are thought to be shy and fearful of rejection, and although they would like to be close to others, have learned that it is safest to maintain distance and not to place too much trust in others (Millon et al., 1982). The present findings are in accord with research that has found relatively high rates of avoidant personality disorder among eating-disordered adults (Johnson & Wonderlich, 1992; Vitousek & Manke, 1994).

Consistent with the hypotheses, anorexic adolescents displayed greater compulsivity than did bulimics. High scores on the Respectful (Compulsive) scale are described as serious, rule-conscious individuals who are concerned with doing the "right" things (Millon et al., 1982). Such individuals keep tight rein on their emotions and prefer to live in a very orderly, predictable fashion. The present findings correspond to those of Rastam (1992), who found in diagnostic interviews that obsessive-compulsive traits were the most salient features of adolescent anorexics (also see Strober, 1981). Also, the findings are congruent with the literature on adult anorexics, who have been characterized as reticent, constricted, and compulsive (Johnson & Wonderlich, 1992; Vitousek & Manke, 1994).

What about the relative lack of impulsive personality characteristics among the bulimic adolescents, a finding that contradicts the characterization of adults bulimics as affectively labile and prone to problems with impulse control? There are several possible explanations for this apparently anomalous finding. For example, it may be that adolescents, who have experienced bulimia nervosa for a shorter duration than have adults with the disorder, are less likely to have developed more generalized problems with impulsivity. Also, there is growing evidence for a distinct subgroup of adults with bulimia nervosa who experience impulsivity in multiple domains, such that some clinicians now use the term "multi-impulsive bulimia" (Fichter, Quadflieg, & Rief, 1994; Wiederman & Pryor, 1996) to distinguish between groups. This distinction appears to make sense clinically, as treatment of eating disorders has been shown to be a lengthy process when compli-

cated by unrelated impulsive behaviors (Dennis & Sansone, 1990; Fichter et al., 1994). It appears that this multi-impulsive subgroup of bulimic individuals may evidence greater rates of borderline personality disorder and relatively poor treatment outcome (Johnson et al., 1990; Rossiter et al., 1993; Sansone & Fine, 1992; Wonderlich et al., 1994). Based on these important findings with adults, further research into the possible existence of a multi-impulsive subgroup of adolescent bulimics appears warranted.

With regard to expressed concerns, from 42.3% to 70.0% of the females demonstrated clinically significant levels of concern over self-concept and personal esteem, acceptance of body and sexuality, and security in peer relationships. Whereas these are often problematic aspects of development for adolescents, the females in the current study scored higher than the psychiatric patients on which the scales were normed. Taken as a whole, the expressed concerns of the sample correspond to the developmental difficulties clinicians have noted among girls with eating disorders (Attie et al., 1990). Such young women have been described as reluctant to give up their status as children and to assume adult roles (Macleod, 1981), and hence experience discomfort with their body as it shows signs of sexual maturation (Bruch, 1973, 1981; Crisp, 1967; Macleod, 1981). Also, given that approximately half of the girls in the current study evidenced an inhibited (avoidant) personality style, it is not surprising that a large proportion expressed concern over feelings of insecurity in peer relationships.

It is of interest that few of the adolescents, particularly the anorexics, expressed concern over academic confidence and conformity to social expectations. These findings correspond with characterizations of anorexic adolescents as "people pleasers" who typically apply their compulsive style to schoolwork and consequently earn good grades (Bruch, 1973, p. 255). Similarly, with regard to the behavioral correlate measures, none of the anorexic adolescents (and few of the bulimics) had MAPI profiles indicative of likely problems with impulse control, societal conformity, or academic achievement. Indeed, the rigid, compulsive personality style noted among anorexic adolescents (Bruch, 1973; Crisp, 1967; Strober, 1981) may explain the lack of difficulties in these areas.

It is important to note that the sample was small and replication of findings with other clinical samples is necessary. Additionally, further research, preferably of a longitudinal nature, is needed to determine whether the observed personality features and concerns of adolescents exist prior to the onset of the eating disturbance or are a function of eating-disorder symptomatology. That is, it is possible that disordered

eating may distort scores on personality instruments such that what is being measured is more closely related to current psychological distress than to enduring personality traits. Certainly, additional research on personality characteristics among adolescents with eating disorders is warranted.

## REFERENCES

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- Archer, R. P., Maruish, M., Imhof, E. A., & Pitrowski, C. (1991). Psychological test usage with adolescent clients: 1990 survey findings. *Professional Psychology: Research and Practice, 22*, 247-252.
- Attie, I., Brooks-Gunn, J., & Petersen, A. C. (1990). A developmental perspective on eating disorders and eating problems. In M. Lewis & S. M. Miller (Eds.), *Handbook of developmental psychopathology* (pp. 409-420). New York: Plenum.
- Bruch, H. (1973). *Eating disorders: Obesity, anorexia nervosa and the person within*. New York: Basic Books.
- Bruch, H. (1981). Developmental considerations of anorexia nervosa and obesity. *The Canadian Journal of Psychiatry, 26*, 212-217.
- Cansler, D. (1986). Review of the Millon Adolescent Personality Inventory. *Journal of Counseling and Development, 64*, 469-471.
- Craig, R. J., & Horowitz, M. (1990). Current utilization of psychological tests at diagnostic practicum sites. *The Clinical Psychologist, 43*, 29-36.
- Crisp, A. H. (1967). Anorexia nervosa. *Hospital Medicine, 1*, 713-718.
- Dennis, A. B., & Sansone, R. A. (1990). The clinical stages of treatment of the eating-disordered patient with borderline personality disorder. In C. Johnson (Ed.), *Psychodynamic treatment for anorexia and bulimia nervosa* (pp. 128-164). New York: Guilford.
- Fichter, M. M., Quadflieg, N., & Rief, W. (1994). Course of multi-impulsive bulimia. *Psychological Medicine, 24*, 591-604.
- Hsu, L. K. G. (1989). The gender gap in eating disorders: Why are the eating disorders more common among women? *Clinical Psychology Review, 9*, 393-407.
- Johnson, C., Tobin, D., & Dennis, A. (1990). Differences in treatment outcome between borderline and nonborderline bulimics at one-year follow-up. *International Journal of Eating Disorders, 9*, 617-627.
- Johnson, C., & Wonderlich, S. (1992). Personality characteristics as a risk factor in the development of eating disorders. In J. H. Crowther, D. L. Tennenbaum, S. E. Hobfoll, & M. A. Paris Stephens (Eds.), *The etiology of bulimia nervosa: The individual and familial context* (pp. 179-196). Philadelphia: Hemisphere Publishing.
- Kandel, D. B., & Davies, M. (1982). Epidemiology of depressive mood in adolescents. *Archives of General Psychiatry, 39*, 1205-1212.
- Macleod, S. (1981). *The art of starvation*. New York: Schochen Books.
- Millon, T., & Davis, R. D. (1993). The Millon Adolescent Personality Inventory and the Millon Adolescent Clinical Inventory. *Journal of Counseling and Development, 71*, 570-574.

- Millon, T., Green, C. J., & Meagher, R. B. (1982). *Millon Adolescent Personality Inventory manual*. Minneapolis, MN: National Computer Systems, Inc.
- Norusis, M. J. (1990). *SPSS advanced statistics user's guide*. Chicago: SPSS Inc.
- Rastam, M. (1992). Anorexia nervosa in 51 Swedish adolescents: Premorbid problems and comorbidity. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 819-829.
- Rossiter, E. M., Agras, W. S., Telch, C. F., & Schneider, J. A. (1993). Cluster B personality disorder characteristics predict outcome in the treatment of bulimia nervosa. *International Journal of Eating Disorders*, 13, 349-357.
- Sansone, R. A., & Fine, M. A. (1992). Borderline personality as a predictor of outcome in women with eating disorders. *Journal of Personality Disorders*, 6, 176-186.
- Strober, M. (1980). Personality and symptomatological features in young, non-chronic anorexia nervosa patients. *Journal of Psychosomatic Research*, 24, 353-359.
- Strober, M. (1981). A comparative analysis of personality organization in juvenile anorexia nervosa. *Journal of Youth and Adolescence*, 10, 285-295.
- Tobin-Richards, M. H., Boxer, A. M., & Petersen, A. C. (1983). The psychological significance of pubertal change. Sex differences in perceptions of self during early adolescence. In J. Brooks-Gunn & A. C. Petersen (Eds.), *Girls at puberty* (pp. 127-154). New York: Plenum Press.
- Vitousek, K., & Manke, F. (1994). Personality variables and disorders in anorexia nervosa and bulimia nervosa. *Journal of Abnormal Psychology*, 103, 137-147.
- Wiederman, M. W., & Pryor, T. (1996). Multi-impulsivity among women with bulimia nervosa. *International Journal of Eating Disorders*, 20, 359-365.
- Wonderlich, S. A., Fulerton, D., Swift, W. J., & Klein, M. H. (1994). Five-year outcome from eating disorders: The relevance of personality disorders. *International Journal of Eating Disorders*, 15, 233-243.