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Running Head: EATING DISORDERS

Abstract

The Eating Disorder Inventory (EDI), the Work and Family Orientation Questionnaire (WOFO), and the Impostor Phenomenon (IP) Scale were compared to determine whether these tests measure similar phenomena in women in a nonclinical population. Each test was subjected to factor analysis to explore existing factor structures. The combined scales of the three tests were factor analyzed, and four factors emerged. The EDI scales loaded on two factors (Symptomology and Immaturity), and the IP Scale loaded on both of these factors. The WOFO loaded on two separate factors (Achievement and Personal Unconcern), with the Perfectionism and Interpersonal Distrust scales of the EDI. The results establish that the EDI is a good inclusive measure, touching on achievement and personal unconcern, and that the EDI incorporates the concept of impostor phenomenon in its scale structure. It is also concluded that the EDI provides an adequate measure of the core characteristics of eating disorders in a normal population.

Eating Disorders, Achievement, and the Impostor Phenomenon

Much research has been completed on eating disorders and their symptomologies. A central focus of much of this research has been the Eating Disorder Inventory (EDI) (Garner, 1990; Garner & Olmstead, 1983). The EDI is an inclusive inventory, measuring many physical and psychological characteristics which are purported to be related to eating disorders. The current research attempts to address how three groups of constructs -- eating disorders, achievement, and the impostor phenomenon, as measured by the Eating Disorder Inventory, the Work and Family Orientation Questionnaire, and the Impostor Phenomenon Scale, respectively -- are measuring similar phenomena. All three occur relatively highly among college women and center on achievement, control, and fear of success.

Eating Disorders and the Eating Disorder Inventory

Eating disorders have been considered a clinical phenomenon, and research has attempted to distinguish actual eating disorders from disordered eating patterns. While noting the prevalence of eating disorders and eating disturbances among college women, researchers have discovered a cluster of symptoms which earned eating disorders inclusion in the Diagnostic and Statistical Manual of Psychological Disorders - III Revised (American

Psychiatric Association, 1980).

Bulimia nervosa is characterized by recurrent episodes of binge eating, often followed by purging, feeling lack of control over eating behavior, taking measures to prevent weight gain (e.g., strict dieting or fasting), and overconcern with body size and weight. Anorexia nervosa, while very similar, has several features which distinguish it from bulimia, such as refusal to maintain minimum recommended body weight and a distorted body image (American Psychiatric Association, 1986). The actual eating disturbances, or unusual eating behaviors such as binging and fasting, are not sufficient criteria to diagnose a disorder of bulimia or anorexia. In addition, psychological symptoms may be present.

A few studies have explored these symptoms in the nonclinical populations of young adult college students, where unusual eating behavior is often present (Edwards & Nogelberg, 1986; French & Rodin, 1989; Klemchuk, Hutchinson, & Frank, 1990; Lundholm & Anderson, 1986; Szekely, Raffeld, & Snodgrass, 1989). Research has shown that eating disturbances appeared in 6 to 13% of college-aged women (Garner & Garfinkel, 1980; Button & Whitehouse, 1981; Cooper, Waterman & Fairburn, 1984; Raciti & Norcross, 1987). It has been found that the number of college

females who manifest some of the symptoms associated with eating disorders is greater than those who actually develop the disorder. For example, Hart and Ollendick (1985) reported binge eating in 69% of university women, but only 5% of the women in their sample were actually bulimic. While binge eating is a symptom of bulimia, this abnormal eating pattern appears with some frequency in individuals who do not have an eating disorder (Hawkins & Clement, 1980; Wolf & Crowder, 1984; Hall & Ollendick, 1985). Sometimes eating disturbances alone are not enough to signify the presence of an eating disorder. It may be true also that the additional psychological factors associated with eating disorders are also experienced by women with no evidence of developing the disorders.

Research has shown that competitiveness, defined as the desire to win in interpersonal situations, is specifically associated with disordered eating. This has been demonstrated in college women, who appear to be compelled to achieve to satisfy both their own standards of excellence and those standards defined by others. These women strive for their goals through a competitive process of exercising and dieting better than others, as well as attaining a lower weight than others. Perhaps the unique college experience itself, with communal living and

working arrangements, and emphasis on achievement, contributes to disordered eating patterns among women (Streigel-Moore, Silberstein, Grunberg, and Rodin, 1990). These issues are what make the population of college women so intriguing.

Several inventories have been developed to assess eating disorders, including both the physical and psychological components, among seemingly normal populations. One of the most sensitive and well researched instruments is the Eating Disorder Inventory (Garner, 1990; Garner & Olmstead, 1983). The Eating Disorder Inventory (EDI) (Garner, 1990) is a multidimensional inventory, comprised of eleven scales or "constructs," which was developed to assess many of the behavioral and psychological factors related to eating disorders (Garner & Garfinkel, 1979) (Refer to Table 1). The EDI has been utilized in many studies, and its multidimensional approach is unique.

Insert Table 1 about here

It is necessary to note that while the EDI has not been used regularly with a normal population, it has been shown to be capable of discerning psychological and cognitive differences among females who have not been clinically diagnosed with an

eating disorder. These women have destructive eating habits and attitudes that do not necessarily evolve into anorexia or bulimia. It is this sensitivity which makes the EDI so valuable to the researcher.

The original Eating Disorder Inventory consisted of eight subscales (Garner & Olmstead, 1983). Three assessed attitudes and behavior concerning eating, weight, and body shape (Drive for Thinness, Bulimia, and Body Dissatisfaction). The other five scales assessed psychological traits shown to be relevant to eating disorders, and those scales are Perfectionism, Ineffectiveness, Interoceptive Awareness, Interpersonal Distrust, and Maturity Fears. The revised EDI retains the original scales and questions with three additional constructs comprising the provisional subscales, which are Asceticism, Impulse Regulation, and Social Insecurity (Garner, 1990) (Refer to Table 2). Little research has been completed on these three new scales.

Insert Table 2 about here

Of the eleven subscales, one of the most relevant to college populations is the Perfectionism subscale, which assesses the extent to which one believes her personal achievements should be

superior, and believes that outstanding achievement is expected by others. This particular component of eating disorders is particularly interesting because it plays a role in other aspects of women's lives, such as the attempt to be many things at once: a good wife, a good mother, and a successful careerwoman (Barnett, 1986).

The Impostor Phenomenon

In regard to the college population, Pauline Clance's "impostor phenomenon" chronicles a syndrome in which high achievers, despite their intellectual and professional accomplishments, persist in the belief that they are not really intelligent, but have fooled everyone who believes otherwise. Clance developed a questionnaire, the Impostor Phenomenon (IP) Scale, which is designed to distinguish Impostors within the normal population. In fact, the highest scoring group on the IP Scale was students.

The impostor phenomenon has been found to be prevalent among highly achieving people, expecially women (Clance & O'Toole, 1988, Clance & Imes, 1978). These women receive external evidence that they are bright, talented, successful people, yet they doubt this evidence and are continually motivated to strive for excellence and recognition. This feeling of inadequacy is

secret and believed to be unique, and it interferes with the person's ability to accept herself and her achievements (Clance, 1985).

Impostors may not be achieving all that they are capable of achieving and are probably not enjoying their accomplishments. They do not have a realistic sense of their own competence and do not internalize their strengths. In addition, they experience anxiety, self-doubt, and guilt (Clance & O'Toole, 1988).

The concept of the impostor phenomenon implies a drive for perfection. Clance refers to the impostor phenomenon as a gradual occurrence, stemming from parental values and expectations. She lists children of super-successful families, those struggling for independence, and college students as especially susceptible to the impostor phenomenon. Students score higher than any other group on the IP test, possibly because they are constantly evaluated through grading and feedback. Many fear failure, feel the need to be perfect, have a tendency to underestimate and doubt their abilities, and have a tendency to remember their deficits and forget their strengths. For these reasons, many impostors find that being a student is one of their most difficult struggles (Clance, 1985).

The impostor phenomenon has never been explored in a

clinical population or, more specifically, in relation to eating disorders. IP characteristics sound strikingly similar to the personality profile for those with symptoms of an eating disorder. Doubt, anxiety and fear when faced with the need to perform (Clance, 1985) are comparable to the feelings of inadequacy, lack of confidence, and worthlessness felt by those with eating disorders. The specific depressive qualities of bulimics cited by Wolf and Crowder (1984) are related to the general fear of loss of control, a characteristic of the Impostor Phenomenon. In addition, the characteristic feelings of "impostors" are hidden (Clance, 1985). This secrecy is similar to behaviors such as binge eating and purging, and feelings of a person with an eating disorder (Neuman and Halvorson, 1983). Parental values and expectations also contribute to both high IP scores and to the development of eating disorders. Finally, impostors feel the need to be special and are often accustomed to being the top performer in their efforts (Clance, 1985; Clance & O'Toole, 1988). This description is similar to expectations of excellence and perfectionism felt by those with eating disorders, and as measured by the EDI.

Achievement

Perfection might also play a role in achievement motivation.

In 1978, Helmreich and Spence reported achievement motivation to be a multidimensional phenomenon, and named four factors that play a role in achievement motivation: Work Orientation is a measure of effort; Personal Unconcern assesses a lack of concern with the negative reactions of others to personal achievement; Mastery assesses the preference for measuring difficult tasks and for meeting internal standards of excellence; and Competitiveness measures the desire to win and the preference for interpersonal competition. These factors are measured in the Work and Family Orientation Questionnaire (WOFO), which was developed by Helmreich and Spence (1978) (Refer to Table 3). How these four factors interact can determines whether an individual fears failure, fears success, creates an atmosphere for success, or seeks situations or develops an attitude that inhibits achievement. The WOFO was developed as an alternative to existing achievement motivation tests, which had been fairly projective and therefore more difficult to score by the average researcher.

Insert Table 3 about here

It is beneficial to employ this differential approach to

achievement orientation, when exploring the relationship of achievement and disordered eating. The concept of Perfectionism has been a central focus in this area of research, but attention should be given to other factors, such as competitiveness and mastery, as well (Streigel-Moore, Silberstein, Grunberg, and Rodin, 1990).

Existing Relationships

Horner's (1968) work on achievement featured the concept of "fear of success." She proposed that the consequences of achievement, or fear of success, may thus inhibit the expression of achievement motivation. Her conclusions were that women were greatly affected by the conflict between affiliation or acceptance, and achievement, and some women consequently feared success. Helmreich and Spence's (1978) objective measurement of fear of success was Personal Unconcern. This scale on the WOFO measures one's concern with other's negative responses to personal achievement; a high score indicates a lack of concern. A low score shows that one is very concerned with the negative opinions of others regarding one's own accomplishments.

Horner's theory is still being explored. It has been suggested that striving to achieve and excel in areas which reflect both stereotypic masculine and feminine realms may be a

contributing factor to eating disorders. Specifically, this theory involves attributes considered central to a woman's sense of self which compose the "superwoman ideal." These attributes include an increased concern with physical appearance, maintaining satisfactory interpersonal relationships, and motivation to achieve and be successful across many diverse roles, such as striving to be physically attractive, while being an effective wife, mother, and working woman (Barnett, 1986; Timko, Streigel-Moore, Silberstein, & Rodin, 1987; Thornton, Leo and Alberg, 1991). Striving to achieve perfection to such an ideal can be stressful. It has been suggested that some women's response to the stress of these multiple pressures and conflicting demands, including the contradiction between personal needs and the desire for conformity, is disordered eating, and, potentially, an eating disorder (Chernin, 1981; Orbach, 1978).

Clance's (1984; Clance & Imes, 1988) description of the impostor phenomenon includes criterion described in the theoretical basis of the development of eating disorders. Parental values and expectations are a predominant theme in the IP, and this is a central theme in Orbach's (1985) theory of eating disorders. Some young women may fail to identify cultural expectations of success and independence as being different from

their own personal expectations, and this leads to a conflict that may be acted out through eating behavior (Steiner-Adair, 1988-89). These approaches describe the difficulty in coping with conflicting messages in the environment, and this is measured by the EDI in the Interpersonal Distrust scale.

The motive to achieve success, as measured by the WOFO achievement-motive factors, is often contrasted with the motive to avoid failure, or the fear of failure. These conflicting motives can contribute to stress. If an individual strives to achieve but fears failure, she may avoid challenging achievement-related activities and her achievement needs will remain unfulfilled. Spence (1983) points out that fear of failure may not lower overall achievement motivation, however. Therefore, fear of failure may not be overtly obvious and may emerge in another form, such as striving for control over body weight. This fear of failure could be related to the Ineffectiveness and Perfectionism scales of the EDI.

Fear of failure may also become a factor in the development of the IP. Clance (1985) refers to fear of failure as the actual fear of shame, self-hatred, lack of self-esteem, and appearing less capable to others. Hard work, perfectionism, and pushing to excel are means of preventing this failure. These

characteristics are similar to those measured by the EDI subscales, again showing the possibility that these coping mechanisms may contribute to the development of an eating disorder. Avoiding difficult intellectual endeavors is a characteristic of low Mastery on the WOFO.

Several additional factors which are common to both achievement and the "impostor phenomenon" have been shown to contribute to the development of eating disorders, including a high need for achievement, rigid self-denying expectations, a false sense of power and control, pressure to perform, harsh self-judgement, and sensitivity to rejection (Brenner, 1980). While bulimics, like persons with anorexia nervosa, are typically successful both scholastically and occupationally (Russell, 1979), they may have feelings of guilt, depression, and low self-esteem (Russell, 1979; Pyle, Mitchell, & Eckert, 1981; Katzman & Wolchik, 1984).

Predictions

The present study examined the interrelationships among these concepts as measured by the Eating Disorder Inventory, Impostor Phenomenon, and Work and Family Orientation Questionnaire in a nonclinical population. Upon factor analysis of the EDI, Klemchuk et al. (1990) found significant

interrelations between the Drive for Thinness, Bulimia, and lack of Interoceptive Awareness scales of the EDI, and consider this to be a possible maladjustment syndrome in women. A high loading of IP scale onto this factor would perhaps enhance this description. From this same study, Maturity Fears, Perfectionism, Interpersonal Distrust, and Ineffectiveness scales factor independently, and Klemchuk, et al. refer to these factors as more general aspects of eating disorder symptomology. Replication of these findings are expected, with projected loadings from the IP and WOFO.

It was expected that predispositions such as achievement motivation and the Impostor Phenomenon may also be related to specific psychological characteristics of eating disorders present in the normal population. Positive correlations were predicted between the Ineffectiveness and Interoceptive Awareness constructs of the EDI. These scales measure feelings of general inadequacy, worthlessness and lack of control; and lack of confidence in recognizing emotional and visceral sensations, respectively. These two scales were also expected to correlate with the IP Scale. Impostors would feel inadequate and hold high internal expectations for themselves, but would not trust their own feelings and instincts. In addition, a positive correlation

was anticipated for the IP and the Perfectionism construct, which measures personal expectations of superior achievement. Impostors strive to achieve and to give the impression of success, and therefore their personal expectations are high. However, they do not consider themselves worthy or capable of a superior level of achievement, and they live in fear that others will discover that they are not of superior caliber.

Regarding the EDI and WOFO, a positive correlation was predicted for Perfectionism and Mastery, which measure similar expectations for excellence. Negative correlations were expected for Work Orientation and Ineffectiveness (this would show that effort decreases with feelings of inadequacy); and Interpersonal Distrust and Personal Unconcern (this would indicate that interpersonal distrust, which includes inability to trust and share feelings with others, is reinforced by negative reactions of others, as measured by Personal Unconcern).

A negative correlation for the IP and Personal Unconcern on the WOFO was predicted. A high score for Personal Unconcern means that an individual lacks concern about the negative reactions of others toward one's personal achievement. Low Personal Unconcern scores were expected for impostors, who are overly concerned with negative reactions of others, while

unconcerned and distrusting of positive reactions. Low Mastery scores were also anticipated for impostors. Mastery assesses preferences for difficult, challenging tasks; impostors characteristically avoid tasks which might reveal their weaknesses. Impostors were expected to have high Competitiveness scores and low Work Orientation scores, showing their desire to win despite negative attitudes about their work.

Methods

Subjects

Subjects were 96 female college students, ages 18-21, who participated voluntarily or as part of a course requirement. The Eating Disorder Inventory, Work and Family Orientation Questionnaire, Impostor Phenomenon Scale, and a demographic questionnaire were administered. Tests were distributed in separate packets to students in classes, and were returned in one week. The return rate was 80%. Tests were grouped in random order to counteract a possible order effect. Debriefing was offered to any student who wished to discuss the research findings of the subject group, but no personal test scores were totaled or released. Four subjects who wrote that they had been diagnosed with an eating disorder were not included in the analysis.

Males were excluded from this study, as it has been shown that only 3.5% of males had elevated scores on tests of eating attitudes, with less than 1% diagnosed with eating disorders (Franco, Tamurrino, Carroll, & Bernal, 1988). In addition, areas of motivation related to the development of symptomology associated with eating disorders for males (for example, body building and maintaining a certain weight, as opposed to the pursuit of thinness, to achieve the typical male goal of being muscular and physically fit), may be different for males and females.

Instruments

The Eating Disorder Inventory

The Eating Disorder Inventory assesses several psychological, cognitive, and behavioral traits associated with bulimia and anorexia nervosa. The test is comprised of eight scales, or constructs, constructed by principle components analysis: Drive for Thinness, Bulimia, Body Dissatisfaction, Ineffectiveness, Perfectionism, Interpersonal Distrust, Maturity Fears, and Interoceptive Awareness (Refer to Table 1). Each item is responded to on a 6-point Likert-type scale, with response choices Always, Usually, Often, Sometimes, Rarely, and Never. The EDI has been used in nonclinical populations to identify

potentially weight-preoccupied individuals (Garner & Olmstead, 1984).

The EDI has been reported to have high internal consistency (Garner, 1990; Garner, Olmstead & Polivy, 1983; Wear & Pratz, 1987), good construct validity (Garner, 1990; Garner, et al., 1983; Hall & Ollendick, 1984), and sufficient criterion validity (Gross, Rosen, Leitenberg, & Wilmuth, 1986). In addition, Burke, Taylor, and Crisp (1985) report that weight gain is not sufficient to result in psychological improvement of anorexic patients as measured by the EDI, demonstrating the sensitivity of the instrument to psychological symptoms. Because this instrument takes into account the various psychological characteristics associated with eating disorders and disturbances, it seemed appropriate for use with a nonclinical population, although its validity with this population has not yet been established. Szekely, Raffeld, and Snodgrass (1989) point out that the presence of several EDI elevated scale scores may not necessarily indicate the presence of an actual eating disorder.
(See Appendix A).

The Work and Family Orientation Questionnaire

The WOFO provides a measure of achievement on four scales which emerged through factor analysis: Work Orientation, Mastery,

Competitiveness, and Personal Unconcern (Helmreich & Spence, 1978). The test is comprised of 23 statements, and each item is responded to on a 6-point Likert-type scale. Response choices are Strongly agree, Slightly agree, Neither agree/disagree, Slightly disagree, and Strongly disagree. The test measures not only attitudes toward achievement related activities but also work and family attitudes such as life satisfaction and intrinsic goals (Spence, 1983). (See Appendix C). Personal Unconcern assesses Horner's (1972) concept of the fear of success, with high scores reflecting a lack of concern with the negative reactions of others to personal achievement. Individuals' responses to the items are assumed to reflect dispositional tendencies that influence their behavior (Spence, 1983).

The WOFO is reported to have adequate reliability and construct validity (Helmreich and Spence, 1978).

The Impostor Phenomenon Scale

The Impostor Phenomenon Scale was designed to assess whether or not an individual possesses the characteristics first described by Clance (1985) as the impostor phenomenon. The IP scale has a powerful face validity (Topping & Kimmel, 1985) and has been recommended by therapists who suspect IP dynamics (Holmes cited in Clance & O'Toole, 1988) to serve as a

therapeutic tool in discussing and labeling a client's feelings. Responses to 20 statements on a 5-point Likert type scale are totaled, and response choices are Not at all true, Rarely, Sometimes, Often, and Very true (See Appendix B). A cutoff score of 60 is recommended to identify impostors (Clance & O'Toole, 1988).

Results

A Pearson Correlation matrix was compiled between the 13 scales of the EDI, WOFO, and IP. A 16 X 16 correlation matrix was generated (Refer to Table 4). Results support the hypotheses of correlations between specific scales. In addition, the number and size of correlations were sufficient to support the analyses which follow.

Insert Table 4 about here

All factor analyses were performed using principal components analysis with varimax rotation. The scree test was employed to determine the number of factors retained for interpretation. Factor loadings > .4 were reported.

The responses to the EDI and WOFO were analyzed separately via principal components analysis to provide confirmation of

established factor analyses of these two inventories. Factor analysis was performed on the 91 questions of the Eating Disorder Inventory and revealed 10 factors with eigenvalues $\geq$ 1. Percent of variance accounted for by these ten factors was 57.5%. These factors were submitted to orthogonal rotation to obtain the solution with the highest factor loadings (Refer to Table 5).

Insert Table 5 about here

A factor analysis was performed on the 23 questions of the Work and Family Orientation Questionnaire to confirm the existing 4 factors. Seven factors emerged with eigenvalues $\geq$1.0 and were submitted to an orthogonal rotation to obtain highest possible factor loadings. (Refer to Table 6). Percent of variance accounted for by these seven factors was 64.9%.

Insert Table 6 about here

A factor analysis was also performed on the Impostor Phenomenon Scale. The purpose of this analysis was to explore any possible existing factor structure within this scale. (Refer to Table 7). Results yielded 4 factors with eigenvalues $\geq$1, and

these were subjected to an orthogonal rotation to obtain the solution with the highest factor loadings. Percent of variance accounted for by these four factors was 57.6%.

Insert Table 7 about here

A factor analysis was performed on the original 8 scales of the EDI, the 4 WOFO scales, and the IP. The data were submitted to principal components analysis. Four factors emerged with eigenvalues $\geq$1.0. These factors were subjected to an orthogonal rotation to obtain the solution with the highest factor loadings (Refer to Table 8). These four factors accounted for 63.4% of variance.

Insert Table 8 about here

A factor analysis was also performed on all 11 scales of the EDI, the 4 WOFO scales, and the IP. The purpose of this analysis was to determine if the 3 Provisional Subscales of the EDI affected the factor loadings of the other scales. The data were submitted to a principal components analysis. Four factor emerged with eigenvalues $\geq$1, and these were subjected to an

orthogonal rotation to obtain the solution with the highest factor loadings (Refer to Table 9). These four factors accounted for 66.6% of variance.

Insert Table 9 about here

The IP Scale loaded on the first and second factors. Six EDI scales loaded on factor 1, and five loaded on factor 2. The 20 individual questions of the IP were correlated with factor scores for factors 1 and 2 to determine which IP questions were associated with specific factors. This analysis attempted to identify the source of commonality for the IP on the EDI (Refer to Table 10).

Insert Table 10 about here

Discussion

Analysis of correlations between scales confirmed specific predictions (Refer to Table 11). Regarding the EDI and IP Scale, a high correlation between Ineffectiveness and Interoceptive Awareness (.60) supported that the feelings of inadequacy as measured by the EDI are related to a lack of confidence in

recognizing emotional and visceral sensations. The IP Scale correlated highly with both Ineffectiveness (.61) and Interoceptive Awareness (.49), confirming that impostors do not trust their own feelings about their performance or their internal states. These results also confirm the claim that Ineffectiveness is related to feelings of inadequacy and low self esteem (Garner, 1990). The IP Scale also correlated with the Perfectionism scale (.28), supporting that both scales provide a measure of personal expectations of superior achievement.

Regarding the EDI and WOFO, the correlation between Perfectionism and Mastery (.28) confirmed that these scales measure similar expectations of excellence. In addition, expected negative correlations were confirmed. Work Orientation and Ineffectiveness correlated negatively (-.21), showing that effort decreases with feelings of inadequacy. Similarly, a negative correlation between Personal Unconcern and Interpersonal Distrust (-.28) was found, showing that the negative reactions of others reinforce one's inability to trust.

There was a negative correlation between the IP Scale and Personal Unconcern (-.39) on the WOFO. Women with low personal unconcern scores also score highly on the IP scale. This supports that women who are overly concerned with the negative

reactions of others to personal achievement also mistrust positive reactions. No correlations between the IP Scale and the other WOFO constructs were found. Therefore, there is no indication that the IP Scale is related to Mastery, Work Orientation, or Competitiveness.

The existing factor structures of the three measures employed in these analyses were explored. Factor analysis of the Eating Disorder Inventory do not completely support the existing factor structure of the EDI, as defined by Garner (1990). Factor 1 is Body Dissatisfaction, factor 3 is Desire for Thinness, factor 5 is Maturity Fears, and factor 8 is Perfectionism. Questions for Impulse Regulation and Ineffectiveness loaded on factor 2. Questions for Interoceptive Awareness loaded on factors 4, 7, and 10. Questions for Interpersonal Distrust loaded on factors 4 and 9. Most questions on the Bulimia scale did not load, but three loaded on factor 6. Asceticism and Social Insecurity were spread over several factors.

The loadings for Body Dissatisfaction, Desire for Thinness, Maturity Fears, and Perfectionism confirm the existing structures of these scales. Ineffectiveness, Interoceptive Awareness, Interpersonal Distrust, and Bulimia do not load as expected, as there is dispersion of these scales over several factors. Of the

provisional subscales, Impulse Regulation loads primarily on factor 2. Asceticism and Social Insecurity do not load clearly on any one factor.

A possible explanation for the discrepancies between these results and the scale structures provided by Garner (1990) is that the EDI was first developed using a clinical sample. These results show that Body Dissatisfaction, Desire for Thinness, Maturity Fears, and Perfectionism are similar for clinical and normal populations. The differences between these populations emerge in the remaining scales of the EDI.

Results of factor analysis of the Work and Family Orientation Questionnaire show that Competitiveness and Perfectionism loaded onto two separate factors. Mastery loaded on 2 factors, and Work Orientation loaded on three factors. These data support that the sample included in this study is similar to the samples used by Helmreich and Spence (1978) when they developed the WOFO. However, there is more dispersion of Work Orientation and Mastery in the present sample.

Exploration of an existing factor structure for the Impostor Phenomenon Scale showed four factors. Six questions loaded on the first factor, and these pertain to Insecurity. The second factor, Praise from Others, includes 8 questions with high

loadings. Five questions loaded on the third factor, Success. Four questions loaded on the fourth factor, Personal Expectations. These results show that the impostor phenomenon is multidimensional, and incorporates both personal expectations and insecurities as well as external praise and measures of success.

The factor analysis of the original scales of the EDI, the 4 WOFO scales, and the IP yielded four factors. The first factor is Symptomology, and is defined by the 3 eating attitudes subscales of the EDI. These scales have the highest loadings on this factor. Drive for Thinness assesses the pursuit of thinness, fear of fatness, and preoccupation with weight; Bulimia assesses the tendency to engage in or think about binge eating; and Body Dissatisfaction assesses dissatisfaction with the overall size and shape of the body. These three scales are more directly related to diagnoses of bulimia and anorexia nervosa, as they measure specific symptoms cited in DSM-III-R.

The Symptomology factor also included the scale for Interoceptive Awareness. This scale measures confusion and uncertainty in responding to one's emotional states and visceral sensations, such as hunger and satiety. This apprehension and distrust of one's internal states, referred to as an "intrapsychic paranoia" (Garner, 1991, p.6), could theoretically

motivate an individual to adopt unnatural eating patterns. For example, one might respond to feeling hungry with a binge, thereby overcompensating for the sensation. In addition, Interoceptive Awareness reflects an overall mistrust of one's self, and therefore of the self concept one has adapted. The desire to seek affirmation elsewhere, through social acceptance, could lead to the dissatisfaction with one's body and the motivation to conform to socially defined norms.

The Impostor Phenomenon also loads onto the Symptomology factor. This loading is interesting, as impostors are said to mistrust positive external feedback, while at the same time mistrusting their own abilities and achievements.

The second factor, Immaturity, is defined by Maturity Fears and Ineffectiveness, two scales of the EDI which reflect general insecurity as well as immaturity. Maturity Fears specifically measures the desire to retreat to the security of childhood, which is an immature coping mechanism. Ineffectiveness assesses several general feelings, including inadequacy and lack of control. Also loading on the Immaturity factor is Interpersonal Distrust. This scale assesses feelings of alienation and the need to keep others at a distance. Specifically, women with high scores on this scale need to keep others at a distance, due to

their reluctance to form close relationships and to express thoughts and feelings. Like the previous two scales on this factor, this scale exhibits not only insecurity, but also inappropriate coping mechanisms for this insecurity. Interoceptive Awareness also loads onto this factor, with the apprehension and mistrust reflecting additional insecurities.

The Impostor Phenomenon Scale also loads on the Immaturity factor. Impostors characteristically try to hide their true selves from others, so that no one will discover that they are not the achievers they seem to be (Clance, 1983). Again, the general feeling of insecurity prevails.

Factor 3, Achievement, is defined by measures of Achievement, specifically the achievement motivation factors of the WOFO. Mastery, Work Orientation, and Competitiveness assess the preference for difficult, challenging tasks; positive attitudes toward work; and the desire to win interpersonal competition, respectively. The Perfectionism scale of the EDI also loads highly on this factor. This scale measures the extent to which a person believes her personal achievements should be superior. Persons with high scores on this scale believe that only the highest standards of excellence are acceptable, and that this same outstanding achievement is expected by others (Garner,

1990). Consequently, it can be assumed that persons who are motivated to compete and to attempt challenging tasks also set a very high standard of performance for themselves.

The fourth factor is defined by one scale from the WOFO, Personal Unconcern, which has a negative factor loading. This loading can be explained by the scale's structure, as a low score on PU shows that one is concerned with the negative reactions of others to one's personal achievement. Also loading on this factor is Interpersonal Distrust, which reflects an insecurity in interpersonal relations. It is evident, however, that this factor reflects something not measured by the other scales.

Including the three provisional subscales of the EDI into the factor analysis did not change the existing factor structure, and the loadings were not surprising. While they do not appear to provide any new information, the separate constructs are interesting. Asceticism, a measure of such virtues as self-discipline and self-sacrifice as related to eating disorders, loaded highly on Factor 1, Bulimia. Asceticism is expressed in dieting as a form of purification, thinness as a virtue, and fasting as an act of penitence (Garner, 1990). These characteristics reflect the subgroup of eating disorder patients who are motivated by a belief in oral self-restraint. Evidence

suggests that oral self-restraint may be a part of a more general physical gratification theme (Haimes and Katz, 1988), which is associated with the concept of gratifiation in the Drive for Thinness and Bulimia scales.

Impulse Regulation and Social Insecurity load highly on Factor 2, Insecurity. IR assesses the tendency toward such personality traits as impulsivity and recklessness, as well as substance abuse and self-destructiveness. These characteristics are seen particularly in patients with eating disorders who are resistant to treatment (Garner, Olmstead, Davis, Rockert, Goldbloom, and Eagle, 1990). Social Insecurity measures social self-doubt, as well as the belief that social relationships are disappointing and unrewarding. Both of these scales are associated with the concept of immaturity as defined by Factor 2. Specifically, women with high scores on these scales lack the ability to control their impulses and maintain satisfying social relationships.

The data reflect a subtle difference between Factor 1 and Factor 2. Scales loading highly on Factor 1 have a common theme of self-dissatisfaction and self-doubt. Factor 2 reflects an interpersonal mistrust and insecurity. These loadings indicate that there may be a component present which has not yet been

specifically addressed. Persons with eating disturbances or detrimental eating attitudes may experience self-doubt about their bodies, personal feelings, and accomplishments, as well as a separate social doubt about interpersonal relationships and the feelings and opinions of the people with whom they share those relationships.

This self-doubt vs. social doubt component is also demonstrated by the correlations between specific items on the IP Scale and the Scales of the EDI. Two questions correlate highly with the Symptomology factor and reflect self-doubt. Question 8 (I rarely do a project or task as well as I would like to do it) and question 20 (I feel bad and discouraged if I'm not "the best" or at least "very special" in situations that involve achievement) describe high expectations of personal achievement and the feeling that those expectations are not being met. Fourteen questions correlate highly with the Immaturity factor and signify social self-doubt. These questions (5, 6, 9, 10, 12, 13, 15, and 17) reflect apprehension about how personal accomplishments will be perceived by others. For example, question 6 (I'm afraid that people important to me will find out that I'm not as capable as they think I am) and question 10 (It's hard for me to accept compliments or praise about my intelligence

or accomplishments) reflect an insecurity about social acceptance.

Factors 3 and 4, Achievement and Personal Unconcern, include high loadings of 2 EDI scales. The high loading of the Perfectionism scale on factor 3 suggests that this scale measures similar components as Mastery, Work Orientation, and Competitiveness. Interpersonal Distrust loaded on factor 4 with Personal Unconcern. This shows that the fourth concept of achievement motivation is also incorporated into the EDI. These results support the concept of achievement motivation as a multidimensional phenomenon, although the loadings only reveal two components.

The results of this study identify the overlap among these three instruments in an attempt to provide a more complete profile of those women with eating disorders. In general, the EDI and WOFO are separate, and each measures something different, although the scales of the EDI do include the concept of achievement motivation. In addition, the impostor phenomenon is associated with the constructs measured by the EDI. This is supported by the factor loadings, in which the EDI and IP Scale load on 2 factors, and the WOFO scales load on 2 separate factors.

The results also support the use of the IP, in conjunction with the EDI, as a tool in identifying and labeling emotions that may contribute to the development of an eating disorder. This benefit could be taken advantage of, despite the fact that the IP measures nothing that the EDI alone will not assess. The results add credibility to the IP as a separate construct, as well as tie it into current eating disorder research.

It has been suggested that college intervention programs can be tailored to suit the needs of individual subgroups, as delineated by their symptomology assessed by the EDI (Klemchuk, Hutchinson, & Frank, 1990). To further enhance this possibility, the IP and WOFO data could assist in addressing additional needs which warrant attention in this type of program. This study by no means provides conclusive evidence that a clinical population would benefit from these assessment techniques, but that is a consideration to be explored in a further study.

The results establish that the EDI is a good inclusive measure, which touches on achievement and personal unconcern, as well as provides an adequate measure of the core characteristics of eating disorders. In addition, the EDI incorporates the concept of the impostor phenomenon. As a whole, the EDI provides a good examination of the characteristics of eating disorders,

both as they appear in the clinical and normal populations.

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Table 1

Eating Disorder Inventory (EDI): Description of Constructs

(Garner, 1990; Garner & Olmstead, 1983)

Construct	Definition
DT Drive for Thinness	excessive concern with dieting, preoccupation with weight, an extreme pursuit of thinness
B Bulimia	tendency towards episodes of uncontrollable bingeing; self-induced vomiting
BD Body Dissatisfaction	misperception of body parts and shape as too large
I Ineffectiveness	feelings of inadequacy, insecurity, worthlessness, and loss of control

(table continues)

Construct	Definition
P Perfectionism	excessive personal expectations of superior achievement
ID Interpersonal Distrust	sense of alienation, reluctance to form close relationships
IA Interoceptive Awareness	lack of confidence in recognizing & identifying emotions or visceral sensations of hunger and satiety
MF Maturity Fears	one's wish to retreat to the security of preadolescent years because of the demands of adulthood

Table 2

EDI Provisional Subscales (Garner, 1990)

Construct	Definition
A Asceticism	tendency to seek virtue through self-discipline, self-denial, self-sacrifice, and control of bodily urges
IR Impulse Regulation	tendency towards impulsivity, self-destructiveness, recklessness, substance abuse
SI Social Insecurity	social self-doubt; belief that social relationships are disappointing, insecure, and unrewarding

Table 3

The Work and Family Orientation Questionnaire (WOFO): Description of Scales (Helmreich & Spence, 1978).

Construct	Definition
W Work Orientation	measures effort, or the desire to work hard and perform well at what one does
PU Personal Unconcern	assesses the importance of peer opinion and how much negative sanctions for one's performance are weighted
M Mastery	reflects a preference for difficult and challenging tasks, and for meeting internal standards of excellence in performance
C Competitiveness	describes the enjoyment of interpersonal competition and the desire to win and be better than others

Table 4

Correlation Matrix: EDI (11 Scales), WOFO (4 Scales), IP[a]

Scale	DT	B	BD	I	P	ID	IA
DT	1.00	.51**	.53**	.40**	.38**	.20	.52**
B		1.00	.40**	.33**	.33**	.06	.47**
BD			1.00	.37**	.11	.27**	.38**
I				1.00	.30**	.44**	.60**
P					1.00	.06	.41**
ID						1.00	.34**
IA							1.00
MF							
A							
IR							
SI							
IP							
M							
W							
C							

(table continues)

Scale	MF	A	IR	SI	IP	M	W
DT	.13	.35**	.30**	.28**	.44**	.10	.01
B	.15	.44**	.40**	.22*	.45**	-.15	-.02
BD	-.01	.27**	.21*	.29**	.45**	-.14	-.10**
I	.57**	.31**	.61**	.69**	.61**	-.13	-.21*
P	.23*	.31**	.35**	.18	.28**	.28**	.16
ID	.32**	.07	.17	.59**	.41**	-.07	-.19
IA	.35**	.31**	.51**	.49**	.49**	-.03	.05
MF	1.00	.14	.36**	.47**	.36**	.07	-.01
A		1.00	.27**	.23*	.31**	.04	.02
IR			1.00	.55**	.31**	.04	.02
SI				1.00	.56**	-.10	-.17
IP					1.00	-.04	-.14
M						1.00	.39**
W							1.00
C							
PU							

(table continues)

Scale	C	PU
DT	.24*	-.21
B	.18	-.16
BD	.09	-.16
I	.25*	-.01
P	.59**	-.13
ID	-.04	-.28**
IA	.24*	-.13
MF	.15	-.13
A	.18	-.06
IR	.33**	-.09
SI	.12	.13
IP	.19	-.39**
M	.42**	-.04
W	.12	.06
C	1.00	-.00
PU		1.00

[a]*Significance = .05

**Significance = .01

Table 5

Rotated (Orthogonal) Factor Matrix: Eating Disorder Inventory

Factor			Factor			Factor		
Question	1	h^2	Question	2	h^2	Question	3	h^2
55 (BD)	.89	.83	83 (IR)	.88	.81	49 (DT)	.83	.75
9 (BD)	.85	.74	85 (IR)	.81	.72	32 (DT)	.75	.71
62 (BD)	.81	.73	67 (IR)	.72	.62	25 (DT)	.72	.61
60 (IA)	.80	.61	79 (IR)	.70	.67	16 (DT)	.70	.65
31 (BD)	.78	.68	84 (SI)	.60	.65	11 (DT)	.69	.60
45 (BD)	.66	.55	50 (I)	.58	.52	64 (IA)	.58	.57
19 (BD)	.64	.64	70 (IR)	.53	.46	7 (DT)	.57	.56
12 (BD)	.61	.56	10 (I)	.51	.57			
2 (BD)	.56	.55	27 (I)	.40	.61			
7 (DT)	.46	.56	77 (IR)	.35	.47			

(table continues)

Factor			Factor			Factor		
Question	4	h^2	Question	5	h^2	Question	6	h^2
56 (I)	.85	.79	39 (MF)	.81	.68	86 (A)	.81	.80
30 (ID)	.83	.75	22 (MF)	.71	.65	61 (B)	.80	.73
17 (ID)	.49	.35	48 (MF)	.66	.61	46 (B)	.73	.72
33 (IA)	.46	.55	58 (MF)	.62	.60	24 (I)	.54	.62
35 (MF)	.45	.42	14 (MF)	.62	.51	5 (B)	.48	.30
18 (I)	.43	.58	3 (MF)	.54	.58			
51 (IA)	.43	.80	8 (IA)	.47	.68			
			18 (I)	.41	.58			

(table continues)

Factor			Factor			Factor		
Question	7	h^2	Question	8	h^2	Question	9	h^2
34 (ID)	.86	.83	13 (P)	.84	.70	73 (SI)	.84	.74
74 (IR)	.74	.68	43 (P)	.74	.63	15 (ID)	.72	.62
21 (IA)	.54	.69	36 (P)	.69	.67	69 (SI)	.64	.64
26 (IA)	.42	.35	52 (P)	.58	.55	23 (ID)	.64	.51
44 (IA)	.40	.49	63 (P)	.46	.38	57 (ID)	.51	.44

Factor		
Question	10	h^2
47 (IA)	.68	.69
40 (IA)	.68	.52

Table 6

Rotated (Orthogonal) Factor Matrix: Work and Family Orientation Questionnaire

	Factor							
Question	1	2	3	4	5	6	7	h^2
7 (C)	.77	.	.	.	.	.	.	.66
15 (C)	.69	.	.	.	.	.	.	.59
3 (C)	.69	.	.	.	.	.	.	.59
20 (W)	.69	.	.	.	.	.	.	.66
23 (C)	.68	.	.	.	.	.	.	.64
6 (M)	.	.73	.	.	.	.	.	.60
1 (M)	.	.66	.	.	.	.	.	.49
16 (M)	.	.61	.	.	.	.	.	.62
10 (M)	.	.53	.	.	.	.	.65	.73
5 (PU)	.	.50	.	.	.	.	.	.67
13 (M)	.	.47	.	.	.	.	.	.68
12 (M)	.	.43	.	.	.	.	.	.60

(table continues)

	Factor							
Question	1	2	3	4	5	6	7	h^2
20 (W)	.	.	.69	.	.	.	.	.66
19 (W)	.	.	.66	.	.	.	.	.70
22 (M)	.	.	.56	.	.	.	.	.60
18 (W)	.	.	.53	.	.	.	.	.63
9 (W)	.	.	.	.82	.	.	.	.76
14 (W)	.	.	.	.81	.	.	.	.72
8 (PU)	.	.	.	.	.87	.	.	.82
11 (PU)	.	.	.	.	.80	.	.	.70
17 (PU)	.	.	.	.	.49	.	.	.58
2 (W)	.	.	.	.	.	.80	.	.73
4 (M)	.	.	.	.	.	.	.70	.57

Table 7

Rotated (Orthogonal) Factor Matrix: Impostor Phenomenon Scale

	Factor[a]				
Question	1	2	3	4	h^2
11	.78	.	.	.	.65
5	.77	.	.	.	.64
6	.67	.	.	.	.55
9	.61	.50	.	.	.64
13	.53	.53	.	.	.66
10	.50	.	.	.	.44
3	.	.80	.	.	.68
4	.	.70	.	.	.63
7	.	.59	.	.	.48
15	.	.55	.	.	.64
17	.	.47	.52	.	.57
8	.	.47	.	.	.45
18	.	.	.65	.	.60

(table continues)

	Factor				
Question	1	2	3	4	h^2
16	.	.	.62	.	.58
14	.	.	.62	.	.66
19	.	.	.62	.	.38
2	.	.	.	.69	.64
20	.	.	.	.60	.56
1	.	.	.	.58	.44
12	.	.	.	.52	.62

[a]Factor 1 is Insecurity.

Factor 2 is External praise.

Factor 3 is Success.

Factor 4 is Personal expectations.

Table 8

Rotated (Orthogonal) Factor Matrix: EDI (8 Scales), WOFO (4 Scales), IP Scale

	Factor[a]				
Variable	1	2	3	4	h^2
DT	.78	.	.	.	.68
B	.78	.	.	.	.61
BD	.75	.	.	.	.64
IA	.61	.50	.	.	.63
IP	.50	.52	.	.	.67
MF	.	.83	.	.	.71
I	.	.81	.	.	.84
ID	.	.58	.	.49	.63
M	.	.	.81	.	.72
C	.	.	.66	.	.63
W	.	.	.64	.	.46

(table continues)

	Factor				
Variable	1	2	3	4	h^2
P	.	.	.61	.	.67
PU	.	.	.	-.86	.76

[a]Factor 1 is Symptomology.

Factor 2 is Immaturity.

Factor 3 is Achievement.

Factor 4 is Personal Unconcern.

Table 9

Rotated (Orthogonal) Factor Matrix: EDI (11 Scales), WOFO (4 Scales), IP Scale

	Factor[a]				
Variable	1	2	3	4	h^2
I	.83	.	.	.	.81
SI	.82	.	.	.	.75
MF	.75	.	.	.	.60
IR	.65	.	.	.	.65
ID	.57	.	.	.57	.68
IP	.53	.44	.	.	.66
IA	.53	.55	.	.	.61
B	.	.80	.	.	.65
DT	.	.73	.	.	.67
BD	.	.67	.	.	.62
A	.	.62	.	.	.41
M	.	.	.83	.	.76

(table continues)

	Factor				
Variable	1	2	3	4	h^2
C	.	.	.67	.	.62
W	.	.	.61	.	.41
P	.	.	.61	.	.66
PU	.	.	.	-.76	.60

[a]Factor 1 is Immaturity.

Factor 2 is Symptomology.

Factor 3 is Achievement.

Factor 4 is Personal Unconcern.

Table 10

Correlations: Individual IP Scale Questions with Factor 1 and Factor 2

	Factor[a]	
IP Scale Question	1	2
1	-.12	.24*
2	.13	.18
3	.14	-.15
4	.25*	-.01
5	.28**	-.09
6	.36**	-.09
7	.17	-.07
8	.25*	-.35**
9	.39**	-.03
10	.37**	.05
11	.21*	-.23*
12	.32**	.08

(table continues)

	Factor	
IP Scale Question	1	2
13	.43**	-.12
14	.26*	.07
15	.40**	-.11
16	.25*	-.01
17	.35**	.11
18	.20*	.05
19	.04	.08
20	.12	.39**

*Significance = .05

**Significance = .01

[a]Factor 1 is Immaturity

Factor 2 is Symptomology

Appendix A

The Eating Disorder Inventory Questions[a]

(Garner, 1990; Garner and Olmstead, 1984)

DT	1.	I eat sweets and carbohydrates without getting nervous.
BD	2.	I think that my stomach is too big
MF	3.	I wish that I cold return to the security of childhood.
B	4.	I eat when I am upset.
B	5.	I stuff myself with food.
MF	6.	I wish that I could be younger.
DT	7.	I think about dieting.
IA	8.	I get frightened when my feelings are too strong.
BD	9.	I think that my thighs are too large.
I	10.	I feel ineffective as a person.
DT	11.	I feel extremely guilty after overeating.
BD	12.	I think my stomach is just the right size.
P	13.	Only outstanding performance is good enough in my family.
MF	14.	The happiest time in life is when you are a child.
ID	15.	I am open about my feelings.
DT	16.	I am terrified of gaining weight.
ID	17.	I trust others.
I	18.	I feel alone in the world.

BD	19.	I feel satisfied with the shape of my body.
I	20.	I feel generally in control of things in my life.
IA	21.	I get confused about what emotion I am feeling.
MF	22.	I would rather be an adult than a child.
ID	23.	I can communicate with others easily.
I	24.	I wish I were someone else.
DT	25.	I exaggerate or magnify the importance of weight.
IA	26.	I can clearly identify what emotion I am feeling.
I	27.	I feel inadequate.
B	28.	I have gone on eating binges when I felt that I could not stop.
P	29.	As a child, I tried very hard to avoid disappointing my parents and teachers.
ID	30.	I have close relationships.
BD	31.	I like the shape of my buttocks.
DT	32.	I am preoccupied with the desire to be thinner.
IA	33.	I don't know what's going on inside of me.
ID	34.	I have trouble expressing my emotions to others.
MF	35.	The demands of adulthood are too great.
P	36.	I hate being less than best at things.
I	37.	I feel secure about myself.
B	38.	I think about bingeing (overeating).

MF 39. I feel happy that I am not a child anymore.

IA 40. I get confused as to whether or not I am hungry.

I 41. I have a low opinion of myself.

I 42. I feel that I can achieve my standards.

P 43. My parents have expected excellence of me.

IA 44. I worry that my feelings will get out of control.

BD 45. I think that my hips are too big.

B 46. I eat moderately in front of others and stuff myself when they are gone.

IA 47. I feel bloated after eating a normal meal.

MF 48. I feel that people are happiest when they are children.

DT 49. If I gain a pound I worry that I will keep gaining.

I 50. I feel that I am a worthwhile person.

IA 51. When I am upset, I don't know if I am sad, frightened, or angry.

P 52. I feel that I must do things perfectly, or not at all.

B 53. I have the thought of trying to vomit in order to lose weight.

ID 54. I need to keep people at a certain distance (feel uncomfortable if someone gets too close).

BD 55. I think that my thighs are just the right size.

I 56. I feel empty inside (emotionally).

ID	57.	I can talk about personal thoughts or feelings.
MF	58.	The best years of your life are when you become an adult.
BD	59.	I think that my buttocks are too large.
IA	60.	I have feelings I can't quite identify.
B	61.	I eat or drink in secrecy.
BD	62.	I think that my hips are just the right size.
P	63.	I have extremely high goals.
IA	64.	When I am upset, I worry that I will start eating.
IR	65.	People I like really end up disappointing me.
A	66.	I am ashamed of my human weaknesses.
IR	67.	Other people would say that I am emotionally unstable.
A	68.	I would like to be in total control of my bodily urges.
SI	69.	I feel relaxed in most group situations.
IR	70.	I say things impulsively that I regret having said.
A	71.	I go out of my way to experience pleasure.
IR	72.	I have to be careful of my tendency to abuse drugs.
SI	73.	I am outgoing with most people.
IR	74.	I feel trapped in relationships.
A	75.	Self-denial makes me feel stronger spiritually.
SI	76.	People understand my real problems.
IR	77.	I can't get strange thoughts out of my head.

A	78.	Eating for pleasure is a sign of moral weakness.
IR	79.	I am prone to outbursts of anger or rage.
SI	80.	I feel that people give me the credit I deserve.
IR	81.	I have to be careful of my tendency to abuse alcohol.
A	82.	I believe that relaxing is simply a waste of time.
IR	83.	Others would say I get irritated easily.
SI	84.	I feel like I am losing out everywhere.
IR	85.	I experience marked mood shifts.
A	86.	I am embarrassed by my bodily urges.
SI	87.	I would rather spend time with myself than with others.
A	88.	Suffering makes you a better person.
SI	89.	I know that people love me.
IR	90.	I feel like I must hurt myself or others.
SI	91.	I feel that I really know who I am.

[a]EDI Scales and Abbreviations:

DT	Desire for Thinness	I	Ineffectiveness
B	Bulimia	MF	Maturity Fears
BD	Body Dissatisfaction	A	Asceticism
P	Perfectionism	IR	Impulse Regulation
ID	Interpersonal Distrust	SI	Social Insecurity
IA	Interoceptive Awareness		

Appendix B

The Impostor Phenomenon Scale

(Clance, 1985, Clance and O'Toole, 1988)

1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.
2. I can give the impression that I am more competent than I really am.
3. I avoid evaluations if possible and have a dread of others evaluating me.
4. When people praise me for something I have accomplished, I'm afraid I won't be able to live up to their expectations of me in the future.
5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place or knew the right people.
6. I'm afraid that people important to me will find out that I'm not as capable as they think I am.
7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.
8. I rarely do a project or task as well as I'd like to do it.
9. Sometimes I feel or believe that my success in my life or job has been the result of some kind of error.

10. It's hard for me to accept compliments or praise about my intelligence or accomplishments.
11. At times, I feel my success was due to some kind of luck.
12. I'm disappointed at times in my present accomplishments and think I should have accomplished more.
13. Sometimes I am afraid others will discover how much knowledge or ability I really lack.
14. I'm often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.
15. When I've succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating my success.
16. If I receive a great deal of praise and recognition for something I've accomplished, I ted to discount the importance of what I've done.
17. I often compare my ability to those around me and think they may be more intelligent than I am.
18. I often worry about not succeeding with a project or on an examination, even though others around me have considerable confidence that I will do well.

19. If I'm going to receive a promotion or gain recognition of some kind, I hesiitate to tell others until it is an accomplished fact.
20. I feel bad and discouraged if I'm not ""the best" or at least "very special" in situations that involve achievement.

Appendix C

The Work and Family Orientation Questionnaire[a]

(Helmreich and Spence, 1978)

1. I would rather do something at which I feel confident and relaxed than something which is challenging and difficult.
2. It is important for me to do my work as well as I can even if it isn't popular with my coworkers.
3. I enjoy working in situations involving competition with others.
4. When a group I belong to plans an activity, I would rather direct it myself than just help out and have someone else organize it.
5. I feel that good relations with my fellow workers are more important than performance on task.
6. I would rather learn easy fun games than tough difficult games.
7. It is important for me to perform better than others on a task.
8. I worry because my success may cause others to dislike me.
9. I find satisfaction in working as well as I can.

10. If I am not good at something I would rather keep struggling to master it than move on to something I may be good at.
11. I avoid discussing my accomplishments because other people might be jealous
12. Once I undertake a task, I persist.
13. I prefer to work in situations that require a high level of skill.
14. There is satisfaction in a job well done.
15. I feel that winning is important in both work and games.
16. I more often attempt tasks that I am not sure I can do than tasks I believe I can do.
17. I sometimes work at less than my best because I feel others may resent me for performing well.
18. I find satisfaction in exceeding my previous performance even if I don't outperform others.
19. I like to work hard.
20. Part of my enjoyment in doing things is improving my past performance.
21. It annoys me when other people perform better than I do.

M 22. I like to be busy all the time.

C 23. I try harder when I am in competition with other people.

[a]WOFO Scales and Abbreviations

M Mastery

C Competitiveness

W Work Orientation

PU Personal Unconcern

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