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Family environments and the development and course of anorexia nervosa

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Running Head: FAMILY ENVIRONMENTS

ABSTRACT

Preoccupation with physical appearance is a hallmark of adolescence, and distorted body images are common among teenage women in developed countries around the world. Obviously all of these adolescents are not contracting eating disorders, and a distorted body image, although necessary, is not sufficient to induce anorexia. The mitigating factor appears to be family relations and environments. Previous research has noted unusual relationships among family members of anorexic girls. The present study contends that familial factors and environments powerfully direct both the move toward and the recovery from anorexia nervosa. It is hypothesized that high scores on the Family Environment and Enmeshment Detection Scale (FEEDS), developed for this study, will correlate with and reliably predict high scores on the Eating Disorder Inventory (EDI) (Garner, Olmsted & Polivy, 1983) and the Eating Attitudes Test (Garner & Garfinkel, 1979). Subjects were females in Introductory Psychology classes and female anorexic patients receiving out-patient treatment. Previous research predicts the college sample will contain at least eleven to thirteen percent of subjects with high scores on the inventories.

Family Environments and the Development and Course of Anorexia Nervosa

Eating disorders, and anorexia nervosa in particular, affect one teenager in every 200, and women between the ages of sixteen and eighteen double those odds, facing an incidence of one in every 100 of their peers. Although it occurs in males, anorexia manifests itself fifteen times more often in women than in men (Abraham & Llewellyn-Jones, 1987), and discussion will be confined to women. An interesting sidelight to the variation in male and female incidences comes from historical, anthropological, and psychological studies. Evidence indicates that women use their appetites to communicate far more often than do men (Brumberg, 1988).

A preoccupation with physical appearance is a hallmark of adolescence, and a distorted body image is not uncommon among teenage women in developed countries around the world. A study of 1,000 teenage girls from the United States found 50 percent of them classifying themselves as obese when objective measurements corroborated these self-diagnoses only 25 percent of the time. Similar results came from Sweden, where 26 percent of the sampled fourteen-year-olds classified themselves as fat (Abraham & Llewellyn-Jones, 1987).

Obviously, however, such vast numbers of adolescent females are not contracting eating disorders. Other mitigating factors come into play, and a distorted body image, although necessary, is not sufficient to induce anorexia.

As outlined in Table 1, anorexia nervosa typically takes a predictable course along which many factors may promote or thwart its development and along which specific warning signals usually appear.

INSERT TABLE 1 ABOUT HERE

Approximately one year before the anorexia is physically manifested, the anorexic may withdraw from her friends, or they may begin excluding her from activities. Accompanying the onset of weight loss, and probably a direct result of her isolation, the anorexic realizes that she no longer fits in well with her peers and cohorts. The possible triggers for the weight loss are many and diverse, but all are permeated with the themes of confusion and indecision. After the anorexia has become a dominating force in her life, the anorexic experiences many changes in her perceptual abilities. For instance, stimuli may seem louder or brighter than ever before; time may seem to slow considerably; or her ability to accurately perceive, not only her own size,

but the size of anything, disappears. Without a salient, strong intervention to break the cycle of misperceptions, the anorexic will eventually starve herself to death. Even after such an intervention, death is a possiblity; however, recovery becomes one also (Bruch, 1978).

Not all weight-conscious women succumb to anorexia, obviously. Therefore, a mitigating factor must come in to play for the women who do. That mitigating factor appears to be family relations and environment. Families, as the primary societal unit, have the most profound effect on the relative adjustment or maladjustment of their members and, by extension, the members of society. The seemingly pivotal role of the family in the development (or lack of development) of eating disorders has been regularly hypothesized but has very little empirical underpinnings when examined via report of the anorectic. Questions of whether or not families are rigid and overprotective, manipulative and controlling have not been found to be valid predictors of these disorders (Harding & Lachenmeyer, 1986).

Table 2 provides a skeleton of demographic and interactive variables commonly found in anorexic families. Anorexics typically come from extremely controlling environments, although, from the outside,

their families are perceived to be ideal, harmonious systems. Often, the anorexic is the most valued child, and she feels responsible for living up to her parents' exalted image as well as for compensating for deficits in other siblings (Bruch, 1978). These girls also report feeling especially responsible for their mothers. It is little wonder then, that anorexics complain of ineffectiveness and work so hard to maintain rigid control over themselves. Constantly fulfilling, or trying to fulfill, others' expectations imposes these externally applied goals onto the anorexic's personal ones, yet remain out of her personal control.

INSERT TABLE 2 ABOUT HERE

In attempting to find a scapegoat for the existence of eating disorders, many an accusing finger has been shaken at Western societies' emphases on slimness in the female. However, anorexia nervosa was simultaneously identified around the world in the 1870's - a time when a more rounded female body was the preferred physique (Brumberg, 1988). Then, as now, the disease primarily afflicted the middle class. According to Brumberg (1988, p.3), "...anorexia nervosa emerged during the throes of industrial capitalist

development, and was nurtured by central aspects of bourgeois life: intimacy and material comfort, parental love and expectation, the sexual division of labor, and popular ideas about gender and class." Wellbourne and Purgold (1984) corroborate this historical perspective with statements from modern-day anorexics. Many of their patients have talked of seemingly polar values being instilled in them - their fathers emphasizing independence, initiative, and success, while their mothers stress consideration and the vices of selfishness and greed. Integrating such conflictual ideals comes, quite literally, with great sacrifice of self. Johnson, Connors, and Tobin (1987) report that subjects often have trouble identifying and coping with moods such as anger and also have difficulty being alone, solving problems (i.e., making decisions), and allowing themselves rewarding, positive activities. These results should come as no surprise given the high degree of emotional dependence on and enmeshment with the family and the rigid, conflicting demands placed on the anorexic.

Bruch (1978) notes that many women with eating disorders do not experience themselves as single persons and, as mentioned above, feel unable to be autonomous, self-directed people. They report a separation of mind and body, and the former scorns the

latter as the superego might scorn the id. Building on this lack of autonomy, even the supreme control the anorexic places on her eating seems to her to be externally applied. This force is the source of her illness (Bruch, 1978). Of primary concern to anorexics is control. After eating, these women report feelings of being out of control in addition to guilt and shame (Herzog & Copeland, 1985). Harding and Lachenmeyer (1986) lend further support to this control theory by finding the locus of control variable to be an accurate predictor of anorexic symptoms. They found anorexics to have significantly more external loci of control than non-anorexics.

Based on the combination of historical data, the importance of the development of locus of control for the potential anorexic, and the aberrant patterns of interaction commonly present in anorexic families, the present study attempts to grasp at the elusive family variable. The hypothesis governing this research is that familial factors and environments powerfully direct both the move toward and the recovery (or lack of recovery) from anorexia nervosa and that societal norms for thinness are largely irrelevant.

Previous research has noted unusual relationships among family members of anorexic girls - a blurring of generational boundaries. Houben (1981), as cited in

Kog and Vandereycken (1985), finds each parent to have a stronger bond with the anorexic daughter than with one another, suggesting an unstable marriage characterized by underlying conflict. However, Kog and Vandereycken (1985) note that the trend in anorexic families is to gloss over conflicts, avoiding them at all costs, and parents often use their child to avert the crises. Minuchin, Rosman, and Baker (1978) as cited in Strober and Humphrey (1987) state that the anorexic's condition promotes conflict avoidance by channelling parental attention on her rather than on the marital situation. Morgan and Russell (1975) examined familial environments as predictors of the outcome of anorexia based on a four-year follow-up study of forty-one of their patients. Over half of the girls reported extreme emotional dependence within their families at treatment onset. This extreme symbiosis was found to be highly correlated with poor outcome.

Dysfunctional patterns of interaction and unusual relationships commonly found in anorexic families provided the springboard for the development of the Family Environment and Enmeshment Detection Scale (FEEDS). The scale was modeled after the Family Adaptability and Cohesion Evaluation Scale III (Olson, Portner, & Lavee, 1986), but the questions addressed by

FEEDS speak more to dysfunctional, enmeshed ways of interacting with and relating to the family. Specifically, the scale addresses parental rigidity, extreme symbiosis between parent and child, thoughts-feelings confusion, generational blurring, and conflict avoidance. (See Appendix 1).

The Eating Attitude Test (Garner & Garfinkel, 1979) and the Eating Disorder Inventory (Garner, Olmsted, & Polivy, 1983) are measures of the presence and severity of eating disorders. The EAT provides a composite score based on questions on feelings about eating, eating habits, routines, and other ideas that, based on research, have been found to be unique to women with eating disorders. (See Appendix 2). The EDI employs a similar format to the EAT and is grounded in a similar empirical base. However, the questions it contains are grouped into the following factors: Drive for Thinness, Bulimia, Body Dissatisfaction, Ineffectiveness, Perfectionism, Interpersonal Distrust, Interoceptive Awareness, and Maturity Fears. (See Appendix 3). Both scales are sensitive to remission and to normality.

It is hypothesized that scores on the Family Environment and Enmeshment Detection Scale (FEEDS) will correlate with and reliably predict high scores on the subscales of the Eating Disorder Inventory (Garner,

Olmsted, & Polivy, 1983) and on the Eating Attitude Test (Garner & Garfinkel, 1979). Based on previous research (Nevo, 1985 and Halmi, Falk, & Schwartz, 1981), the college sample is expected to contain at least eleven to thirteen percent of subjects with high scores on the EDI and EAT, all of whom may not have physically manifested symptoms. Bruch (1973), as cited in Garner and Garfinkel (1980) aptly describes such high scorers as "thin fat" people.

METHOD

Subjects.

29 women from the Introductory Psychology classes of a small, private university and five women undergoing out-patient treatment for anorexia served as subjects. The anorexic sample was at or below ninety percent of the average body weights for their heights and ages. Subjects ranged in age from eighteen to twenty-five years. The university sample matched well with the demographic predictors of anorexic families, and this group was expected to contain a wide range of scores on the inventories and a higher percentage of high scores than would be gotten from the general population.

In return for their participation, the university women received course credit in their Introductory Psychology classes. Data from the anorexic sample was obtained without any form of retribution.

Materials.

The Eating Attitude Test (EAT) (Garner & Garfinkel, 1979) and The Eating Disorder Inventory (EDI) (Garner, Olmstead, and Polivy, 1983) were used to assess the degree of disturbance present in the women's eating behaviors (See Appendices 1 and 2). Validation studies of both scales have shown them to be reliable

sensors of eating disorders as well as being sensitive to remission/recovery and normality (Garner & Garfinkel, 1979; Garner, et.al., 1983). The subscales of the EDI yield a rich pool of information from many aspects of the takers' thoughts and feelings. The EAT, a more general assessment, is primarily concerned with discriminating between normal women and women with eating disorders.

The Family Environment and Enmeshment Detection Scale (FEEDS) was developed to determine the levels of control, emotionality, rigidity, and enmeshment present in the family environments. The scale uses Likert-type categorizations (never true, rarely true, sometimes true, usually true, and always true) to rate questions representative of anorexic families' patterns of interaction and relating to one another. These patterns were gleaned from recurring themes in the research on anorexic families previously discuseed.

Procedure.

When they arrived, the college sample subjects were assigned individual subject numbers and group numbers (to differentiate them from the anorexic sample). It was explained that the questionnaires they were to fill out investigated the existence of a link betweeen family environments and eating behaviors. Subjects were given the option, via the consent form,

to withdraw at any time during the course of the experiment and were assured that their responses would remain confidential. If, after the inventories had been scored, subjects wished to know their own scores, they wrote their names, subject numbers and phone numbers on a separate sheet of paper and were contacted later.

After these preliminary instructions, subjects were given the EAT, EDI, and FEEDS, one at a time and in counterbalanced order. The next test was not given until the preceding one had been completed and returned.

One month after the first tests were given, the college sample were retested on the FEEDS. This retest confirmed response reliability.

The anorexic sample received copies of the three questionnaires, a consent form, and an instruction sheet in envelopes. The envelopes had been delivered to the women's therapist, and he distributed them. This method of distribution was mutually chosen by the therapist and researcher to protect the privacy of the anorexic participants. After completing the inventories, the anorexic sample returned all materials to the therapist, and he relayed them to the researcher.

RESULTS

Multiple regression analysis was done to ascertain how well scores obtained from the college sample on the subscales of the EDI predicted the college sample's scores on the FEEDS. A significant relationship was found between the two scales (R=.758, F=3.384, p<.0128). Breaking the correlation down to see what proportion of variance each subscale accounted for revealed scores on the Ineffectiveness scale to account for the most variance (Partial F=12.989, Beta value=-1.295, p<.0018). Note the relationship was negative, meaning that low scores on the Ineffectiveness measure predicted high scores on the FEEDS. In other words, feelings of personal efficacy were associated with high levels of enmeshment and dependence on the family. The Maturity Fears subscale accounted for the next largest portion of the variance (Partial F=3.619, Beta Value=.746, p<.0716), but the relationship between the two scales fell slightly shy of significance. The relationship, however, was a direct one, indicating that strong fears of adulthood were related to high levels of enmeshment with the family. The Perfectionism subscale was also just short of being significantly related to scores on the FEEDS (Partial F=3.018, Beta Value=.566, p<.0977). The direction of the relationship, however, indicated that a high drive

for perfect performance was associated with high levels of enmeshment in the family.

Because the EAT and EDI addressed similar and related aspects of disordered patterns of thinking and behaving, a significant, predictive relationship was expected between the two scales. Analysis of the ability of the EDI subscales to predict scores on the EAT was significant ($R=.819$, $F=5.102$, $p<.0015$). As above, each subscale was examined for its contribution to the variance, and Drive for Thinness and Perfectionism were the only two subscales accounting for significant proportions of total variance. The Drive for Thinness Partial F was 13.202 (Beta Value=7.092, $p<.0017$), meaning that high scores on the Drive for Thinness measure were related to high scores on the EAT. A strong drive for perfectionism was also significantly related to high scores on the EAT (Partial $F=4.199$, Beta Value=.634, $p<.0538$).

To determine response reliability on the FEEDS, twelve subjects from the college sample took the FEEDS again, one month after the first testing. Correlation between the two scores produced a reliability coefficient of .815 ($F=19.828$, $p<.0012$). Individual scores appeared to be stable across time.

Because of the very small number of anorexics in the sample, multiple regression analyses could not be

run on their data. Correlations between the anorexics' scores on the FEEDS and their scores on the EDI subscales and the EAT found no relationship between scores on the EAT and scores on the FEEDS and only one signficant relationship between scores on the subscales and scores on the FEEDS. High scores on the Drive for Thinness subscale were significantly related to high levels of family enmeshment (r=.972, F=51.55, p<.01).

Analysis of Variance between the college and anorexic scores on all the scales found no difference between the two groups' scores on the FEEDS, on the Body Dissatisfaction subscale, or on the Maturity Fears subscale. However, the anorexics scored significantly higher on the EAT (F=68.612, p<.0001), on Drive for Thinness (F=16.921, p<.0003), on Bulimia (F=76.818, p<.0001), on Feelings of Ineffectiveness (F=26.648, p<.0001), on Perfectionism (F=12.026, p<.0015), on Interpersonal Distrust (F=14.414, p<.0006), and on Interoceptive Awareness (F=72.848, p<.0001). Conclusions are somewhat limited by the disparity in sample size between the two group, but there appears to be a strong difference among most of the scores from the two groups. Table 3 containes mean scores for the anorexic and college samples.

Insert Table 3 About Here

Based on previous research on the presence of disordered patterns of and feelings about eating, 11% to 13% of the college sample were expected to have high scores on the EAT and EDI. The mean scores to which comparisons were made came from means developed in the validation studies of the EAT and EDI (Garner & Garfinkel, 1979; Garner, Olmsted, & Polivy, 1983). Within the college sample, 3.4% scored above 30 (the cut-off score, above which a disorder is diagnosed) on the EAT. 17.2% of the sample scored above 28, a relatively high score, on the EAT. 17.2% of the college sample also scored within one SD of the anorexic mean on the Drive for Thinness scale of the Eating Disorder Inventory. 37.9% of the college sample scored above the anorexic mean for Body Dissatisfaction (recall there was no difference between the anorexic sample and the college sample scores on this subscale). 24.1% scored above the bulimic mean for Body Dissatisfaction. Bulimics tend to have higher levels of body dissatisfaction than anorexics, therefore their mean score on this subscale is higher. Lastly, 31% of the college sample scored above the anorexic mean on the Perfectionism subscale.

DISCUSSION

The hypothesis of a relationship between scores on the FEEDS and scores on the EAT and EDI subscales was partially supported. The relationship in the college sample between the Ineffectiveness subscale and the FEEDS seemed counterintuitive upon first consideration. Taking into account, however, the externality of high scorers on the EDI (anorexics and "thin-fat" people) the negative relationship between the two scales was reasonable. If these women rely on forces outside of themselves for self-worth, and are highly enmeshed with their families and concerned with trying to please them, it logically follows that regular, positive feedback from family members would increase her sense of personal effectiveness. Couple these efforts to please the family with a strong drive for perfectionism, and the result is a virtual guarantee of consistently positive feedback from the family and strong feelings of personal efficacy. The relationship between family enmeshment and the Maturity Fears subscale in the college sample requires much less interpretation as it represents such a natural connection. Excessive involvement with and dependence on the family must certainly produce fears of growing up and losing the support and positive strokes (and subsequent feelings of effectiveness) that come from

the relationship. The three subscales appear to become intimately related with one another via the conduit of excessive involvement with family.

Within the anorexic sample, the finding that only the Drive for Thinness subscale was significantly related to scores on the FEEDS can be, at best, only a tentative conclusion. The extremely small number of anorexics who participated in the study were probably the primary culprit in the failure to find more of a relationship between the FEEDS and the EAT and EDI. However, working only with the Drive for Thinness subscale, this initial finding suggests that the FEEDS has tapped an important facet of anorexia - the disorder's defining characteristic, in fact. As mentioned above, the family's influence on eating disorders has been the object of much speculation, but has thus far found very little empirical support. The suggestion of the relationship between the FEEDS and the Drive for Thinness subscale produced by this data implicates enmeshment as a pivotal variable in the relationship between family and severly restricted eating. It is the anorexic's drive for thinness that both controls her life and threatens it. Based on these preliminary results, treatment of dysfunctional family interactions and relationships would effect major changes in the anorexic's condition.

Although the relationship between the EAT and EDI was a significant one, the Perfectionism and Drive for Thinness subscales accounted for a good deal of that significance. This relationship is a provocative one because of the bearing these two variables had on the FEEDS in both the anorexic and college samples. Recall that the Perfectionism subscale was close to being significantly related to scores on the FEEDS in the college sample. Similarly, Drive for Thinness was significantly related to scores on the FEEDS in the anorexic sample. It seems reasonable that a recurring relationship such a this one taps a common core linking disordered eating (as measured by the EAT and EDI) and the family environment (ascertained via the FEEDS). One implication of this relationship is that high levels of family enmeshment can occur with high levels of perfectionism and/or a strong Drive for Thinness. Perhaps these two variables in combination with high levels of enmeshment provide fertile ground for the development of anorexia.

The college sample contained higher levels of disordered behavior and thought patterns than were originally predicted. In addition, there was no difference between the anorexic and college samples' scores on the FEEDS, Body Dissatisfaction subscale, or the Maturity Fears subscale. Although higher than

predicted by previous research and higher than hypothesized, this incidence of disorders was not completely unexpected given the demographic similarity of the college sample to the typical anorexic family. However, though not surprising, such an incidence is alarming. Eating disorders are invading the lives of ever-increasing numbers of families, and the field is presently at a loss to pinpoint the primary variable.

The present study's examination of enmeshment appears to have found some empirical support for this factor being a promising one for future exploration. Replication of this study with larger and equal-N samples might boost to significance the relationships between inventories that fell short of significance under the present conditions. Further investigation of the relationship between enmeshment, Drive for Thinness, and Perfectionism may lead to the quantification of the forces driving young women to develop eating disorders. Longitudinal research on families may also prove profitable in locating differential patterns of early interaction that later culminate in eating disorders. Additionally, further testing and refining of the FEEDS with a larger anorexic sample would aid in narrowing the scope of familial conditions relating to the development of anorexia. Concentrated attention on the family piece

of the anorexic puzzle will eventually find where that piece fits. Ignoring the role this fundamental unit of society plays in this disease can do nothing but slow the steps to its erradication.

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Table 2

MODEL OF FAMILIAL ENVIRONMENTS LEADING TO ANOREXIA NERVOSA

Demographic Variables

Upper-Middle Class
High Social Position
Small Family
Paucity of Sons

Parental Variables

Conscientious & Devoted Mother
Self-Assured
Overvalue Child
Emphasis on "Proper" Behavior
Preoccupation with Appearances
Controlling

Effect on Daughter

Special Responsibility for Mother
Demands High Academic Achievement
High Level of Enmeshment with Parents
Feels Undeserving, Unworthy, Ungrateful
Perceives Goal to be Parental Happiness and Pride
Childish Interpretations of Situations
No Sense of Self
Continuously Fearful of Not Being Loved/Acknowledged
Judgemental of Peers
Extremely Vulnerable to Criticism
Compensates for Parental Disappointment in Lack of Sons

Table 1

DEVELOPMENTAL COURSE OF ANOREXIA NERVOSA

Isolation

- With drew from friends or was excluded
(usually year before onset of illness)

Physical Manifestation

- Out of step with age group

Possible Instigators

- Wish to Freeze Time
- Fear of Separation
- Remark from Someone
- Saw Picture of Herself
- Confronted with New Experiences
(i.e., college, camp...)
- Onset of Puberty
- Sexual, Dating Demands
- Fear of Growing Up and Resultant Loss
of Parental Love
- Extreme Indecision
(i.e., identity, what is "proper," what parents
want vs. what she wants)
- Would Have Preferred to be a Boy
(Puberty brings womanhood)

Changes from Anorexia

- Hyperacuity of Senses
- Feel Special and Different
- Feel Superior
- Size Overestimation
(of self, other people, distances...)
- Pride in Appearance
- Biological Misconceptions
(concerning metabolism, digestion...)
- "I'm not Hungry"
- Brainwash Self
- Distorted Sense of Time

Meaningful
Interruption of
Reality

Death Isolation & Invalidism Recovery

Table 3

Mean Scores of Anorexics and College Students on the Eating Attitudes Test and the Eating Disorder Inventory

	Group	
Scale	Anorexic	College
EAT	58.2	17.724
FEEDS	72.0	69.0
Drive for Thinness	15.4	5.207
Bulimia	9.2	.793
Body Dissatisfaction	17.6	11.759
Ineffectiveness	14.0	1.621
Perfectionism	13.8	6.862
Interpersonal Distrust	8.0	1.793
Interoceptive Awareness	17.2	2.552
Maturity Fears	4.0	2.448

Appendix 1

Family Environment and Enmeshment Detection Scale

On the line beside each question, please place the number of the response which most accurately applies to you. There are no right or wrong answers.

1 - Never True
2 - Rarely True
3 - Sometimes True
4 - Usually True
5 - Always True

___ 1. It is difficult for me to make decisions without considering my parents' points of view.

___ 2. I find it hard to imagine living independently of my parents.

___ 3. It is easy for me to recognize my feelings and separate them from my purely intellectual thoughts.

___ 4. I rarely feel responsible for my parents' happiness.

___ 5. My parents treat me as a peer.

___ 6. It is easy for me to change my parents' minds.

___ 7. My parents do not ascribe to any specific creed and usually let situations dictate their actions and opinions.

___ 8. My parents treat me the same way they treat each other.

___ 9. My parents get along better with me than they do with each other.

___ 10. In my family, we never argue.

___ 11. I often make my decisions based on how I think my family will feel about them.

___ 12. I think the same of myself regardless of how my family feels about me or my actions.

___ 13. My parents do not turn to me when they argue.

___ 14. I make decisions because they "feel" right.

Appendix 1 (cont.)

___ 15. Traditions are very important in my family.

___ 16. My parents are highly involved in many aspects of my life.

___ 17. It is important for other people to see my family as a loving, positive, ideal one.

___ 18. I would rather allow someone else to believe he or she is right than have to argue to defend my position.

___ 19. I am able to put aside my emotional reactions in order to make a decision completely from logic.

___ 20. My parents do not get upset if I choose to act or perform a task differently than they do.

___ 21. My satisfaction comes from satisfying my family.

___ 22. It is important to consider appearances and what my family will think before making decisions or taking actions.

___ 23. My feelings and emotions are an integral factor in all my decision-making processes.

Appendix 2

The Eating Attitude Test

Please place the letter of the response that best applies to you on the line in front of each statement. There are no right or wrong answers.

A = Always	S = Sometimes
V = Very Often	R = Rarely
O = Often	N = Never

___ 1. Like eating with other people.

___ 2. Prepare foods for others but do not eat what I cook.

___ 3. Become anxious prior to eating.

___ 4. Am terrified about being overweight.

___ 5. Avoid eating when I am hungry.

___ 6. Find myself preoccupied with food.

___ 7. Have gone on eating binges where I feel that I may not be able to stop.

___ 8. Cut my food into small pieces.

___ 9. Aware of the calorie content of foods that I eat.

___ 10. Particularly avoid foods with a high carbohydrate content (e.g. bread, potatoes, rice, etc.)

___ 11. Feel bloated after meals.

___ 12. Feel that others would prefer if I ate more.

___ 13. Vomit after I have eaten.

___ 14. Feel extremely guilty after eating.

___ 15. Am preoccupied with a desire to be thinner.

___ 16. Exercise strenuously to burn off calories.

___ 17. Weigh myself several times a day.

___ 18. Like my clothes to fit tightly.

___ 19. Enjoy eating meat.

Appendix 2 (cont.)

___ 20. Wake up early in the morning.

___ 21. Eat the same foods day after day.

___ 22. Think about burning up calories when I exercise.

___ 23. Have regular menstrual periods.

___ 24. Other people think that I am too thin.

___ 25. Am preoccupied with the thought of having fat on my body.

___ 26. Take longer than others to eat my meals.

___ 27. Enjoy eating at restaurants.

___ 28. Take laxatives.

___ 29. Avoid foods with sugar in them.

___ 30. Eat diet foods.

___ 31. Feel that food controls my life.

___ 32. Display self control around food.

___ 33. Feel that others pressure me to eat.

___ 34. Give too much time and thought to food.

___ 35. Suffer from constipation.

___ 36. Feel uncomfortable after eating sweets.

___ 37. Engage in dieting behavior.

___ 38. Like my stomach to be empty.

___ 39. Enjoy trying new rich foods.

___ 40. Have the impulse to vomit after meals.

Appendix 3

The Eating Disorder Inventory

Please place the letter of the response that best applies to you on the line in front of each statement. There are no right or wrong answers.

A = Always S = Sometimes
U = Usually R = Rarely
O = Often N = Never

___ 1. I eat sweets and carbohydrates without feeling nervous.

___ 2. I think that my stomach is too big.

___ 3. I wish that I could return to the security of childhood.

___ 4. I eat when I am upset.

___ 5. I stuff myself with food.

___ 6. I wish that I could be younger.

___ 7. I think about dieting.

___ 8. I get frightened when my feelings are too strong.

___ 9. I think that my thighs are too large.

___ 10. I feel ineffective as a person.

___ 11. I feel extremely guilty after overeating.

___ 12. I think that my stomach is just the right size.

___ 13. Only outstanding performance is good enough in my family.

___ 14. The happiest time in life is when you are a child.

___ 15. I am open about my feelings.

___ 16. I am terrified of gaining weight.

___ 17. I trust others.

___ 18. I feel alone in the world.

___ 19. I feel satisfied with the shape of my body.

Appendix 3 (cont.)

___ 20. I feel generally in control of things in my life.

___ 21. I get confused about what emotion I am feeling.

___ 22. I would rather be an adult than a child.

___ 23. I can communicate with others easily.

___ 24. I wish I were someone else.

___ 25. I exaggerate or magnify the importance of weight.

___ 26. I can clearly identify what emotion I am feeling.

___ 27. I feel inadequate.

___ 28. I have gone on eating binges where I have felt that I could not stop.

___ 29. As a child, I tried very hard to avoid disappointing my parents and teachers.

___ 30. I have close relationships.

___ 31. I like the shape of my buttocks.

___ 32. I am preoccupied with the desire to be thinner.

___ 33. I don't know what's going on inside me.

___ 34. I have trouble expressing my emotions to others.

___ 35. The demands of adulthood are too great.

___ 36. I hate being less than best at things.

___ 37. I feel secure about myself.

___ 38. I think about bingeing (overeating).

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

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

___ 41. I have a low opinion of myself.

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

Appendix 3 (cont.)

___ 43. My parents have expected excellence of me.

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

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

___ 46. I eat moderately in front of others and stuff myself when they're gone.

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

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

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

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

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

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

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

___ 54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).

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

___ 56. I feel empty inside (emotionally).

___ 57. I can talk about personal thoughts or feelings.

___ 58. The best years of your life are when you become an adult.

___ 59. I think that my buttocks are too large.

___ 60. I have feelings I can't quite identify.

___ 61. I eat or drink in secrecy.

___ 62. I think that my hips are just the right size.

___ 63. I have extremely high goals.

___ 64. When I am upset, I worry that I will start eating.