

**FEAR AND AVOIDANCE OF FOODS IN ANOREXIA AND BULIMIA NERVOSA:  
A PRELIMINARY VALIDATION OF THE FOOD PHOBIA SURVEY**

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## Dedication

To my friends and family for all their patience, love, and support. I am especially grateful to my mom and dad for countless rounds of editing, solving my late-night printer emergencies, and for making all of this possible.

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I would like to thank my advisor, Dr. Kelly Vitousek, for her expertise in guiding me throughout this research. I am additionally grateful to Dr. Vivian Gonzalez for use of her data and whose work served as a foundation for this study.

## Abstract

The Food Phobia Survey (FPS; Vitousek, 1998) is a questionnaire designed to identify the feared and forbidden foods of eating disordered patients. A wide array of contemporary foods typically eaten by eating disordered individuals as well as items that are typically avoided are assessed in terms of frequency eaten, guilt/fear associated with consumption, and hedonic appeal. The current study is a preliminary examination of the properties of the FPS in a clinical sample of patients with anorexia nervosa (AN), bulimia nervosa (BN), or eating disorder not otherwise specified (ED-NOS). Data from a sample of normal individuals were compared with data from a clinical population. On measures of frequency of consumption, fear, guilt, and avoidance, the FPS was found to discriminate between eating disorder patients, dieters, and non-dieters. No significant differences were found according to diagnosis or between restricting and bingeing subtypes. Consumption patterns suggested by the FPS compared well to those reported by ED patients on self-monitoring forms and other ED measures. In a clinical setting, the FPS may be a valuable therapeutic tool for assessing current food choices and food-related concerns, constructing hierarchies for graded exposure, and evaluating treatment outcomes in terms of fear and avoidance of food items; however, further research with clinical populations is necessary.

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## Chapter 1

### Introduction

Abnormal eating patterns are characteristic of anorexia nervosa (AN), bulimia nervosa (BN), and eating disorder not otherwise specified (ED-NOS). Clinical features of AN include refusal to maintain body weight at a normal level, preoccupation with weight and shape, behaviors related to the pursuit of thinness, and the physical consequences of such behaviors (e.g. emaciation, disturbed endocrine function, and other nutritional abnormalities) (American Psychiatric Association, 2000; Beumont, 2002; Walsh & Garner, 1997). While some individuals with AN rely only on restrictive behaviors such as undereating and avoiding high-energy foods, often in combination with strenuous exercise, others also employ purging behaviors such as vomiting and laxative or diuretic abuse. Clinical features of BN also include preoccupation with weight/shape and behaviors aimed at promoting weight loss or weight maintenance. Unlike their anorexic counterparts, however, bulimic individuals are typically within a normal weight range and alternate between restrictive eating behaviors and episodes of uncontrolled overeating followed by compensatory behaviors such as vomiting and excessive exercise (American Psychiatric Association, 2000; Beumont, 2002; Walsh & Garner, 1997). Atypical conditions that meet the definition of an eating disorder (ED) but not the diagnostic criteria of either AN or BN are classified by the DSM-IV as ED-NOS (American Psychiatric Association, 2000; Fairburn & Walsh, 2002). These atypical eating disorders are at least as common as AN and BN in clinical practice and should not be viewed as mild or subclinical in severity since they are associated with a clinical level

of impairment. Clinical characteristics of ED-NOS vary considerably. Some cases closely resemble AN or BN but fail to meet full diagnostic criteria. Other atypical eating disorders bear less resemblance to AN or BN: for example, Binge Eating Disorder (BED) which is characterized by recurrent episodes of binge eating in the absence of the extreme weight-control behavior seen in BN.

### Eating Behaviors

Dietary restriction involves intentional and sustained restriction of caloric intake. In order for weight loss to occur, dietary restriction must result in an overall negative energy balance (Herman & Mack, 1975; Laessle, Tuschl, Kotthaus, & Pirke, 1989; Wilson, 2002). Studies on the average daily caloric intake for restricting AN patients vary substantially. Asking 20 AN patients to recall their intake over the past month, Van Binsbergen, Hulshof, Wedel, Odink, and Coelingh (1988) reported an average daily intake between 525 and 1575 kilocalories (kcal) for most patients. Based on 24-hour dietary recalls at different points in their illness, Beumont, Chambers, Rouse, and Abraham (1981) reported an average daily intake of 597 kcal for 17 AN patients with individual daily intakes ranging from 60 to 1240 kcal. Huse and Lucas (1984) asked 96 patients to recall their diet history for several weeks before their intake assessment and reported an average caloric intake of 900 kcal per day.

Restricting patients typically report avoidance of sweet foods (sugar, chocolate, apple pie, sweetened fruit juices), starchy foods (potatoes, French fries, white bread), fatty foods (mayonnaise, butter, fried foods), and red meat (Beumont 2002; Van Binsbergen et al., 1988; Huse & Lucas, 1984). Many meals are eaten at atypical times,

are of unsatisfactory quality, and are inadequate in quantity (Davis, Freeman, & Garner, 1988; Huse & Lucas, 1984). Idiosyncratic behaviors such as cutting food into minute portions, eating exceptionally slowly, adding excessive condiments, eating a bizarre sequence of dishes, drinking too much or too little fluid, secretly disposing of food, and counting calories are common (Beumont, 2002). Many of those behaviors are also characteristic of normal individuals in semi-starvation conditions such as those experienced in war-torn Europe and for experimental purposes (Kalm & Semba, 2005).

When attempts at sustained restraint are unsuccessful, AN and BN patients typically develop a pattern of restrictive eating interspersed with episodes of binge eating (Abraham & Beumont, 1982; Fairburn, 2002). According to the DSM-IV (American Psychiatric Association, 1994), a binge episode is characterized by (1) in a discrete period of time, eating a larger amount of food than most people would eat in the same amount of time and in similar circumstances; and (2) a sense of lack of control over eating during the episode. In a study of 40 BN patients, Mitchell, Pyle, and Eckert (1981) reported an average of 11.7 binges over a one-week period, with a range of 1-46 episodes. According to Johnson, Stuckey, Lewis, and Schwartz (1983) and Fairburn and Cooper (1984), approximately half of their bulimic participants engaged in binge eating at least once a day. In a separate study, 17.1% of patients reported binge-eating at least twice a day (Fairburn & Cooper, 1984).

Findings on the average caloric intake during a binge episode vary a great deal. According to Abraham and Beumont (1982), 32 patients presenting at an ED clinic with complaints of overeating reported consuming from 3 to 27 times the recommended daily

allowance (RDA) of calories on a “bad day” of binge eating. Based on self-report measures from 316 BN patients who returned mail surveys, Johnson et al. (1983) reported an average consumption of 4,800 kcal per episode, with individuals’ typical episodes ranging from 1,000 to 55,000 kcal. On average, patients in this 1983 study spent \$8.30 per binge, with a range of \$1.00 to \$55.00 per binge. Davis et al. (1988) reported that 26 women who met criteria for BN consumed an average minimum of 669 kcal and an average maximum of 2,327 kcal during a binge episode. Based on 199 binge-eating and 440 non-binge-eating episodes from 20 BN patients, Rosen, Leitenberg, Fisher, and Khazam (1986) found that the average binge contained 1,459 kcal with individual binge episodes ranging from 45 to 5,138 kcal.<sup>1</sup> Substantial overlap was found between the sizes of what patients considered to be binge-eating and non-binge-eating episodes, such that 65% of binge-eating episodes also fell within the range of non-binge-eating episodes. Comparison of content from low-calorie binge-episodes and non-binge episodes indicated that patients’ views of what constitutes a binge are strongly influenced by whether calories are obtained from snack and dessert foods as opposed to fruits and vegetables.

Foods that are commonly eaten during a binge include ice cream, bread, candy, doughnuts, salads, sandwiches, cookies, popcorn, cheese, and cereal (Mitchell et al., 1981). Typically, these are foods that AN and BN individuals do not allow themselves to eat at other times (Abraham & Beumont, 1982; Beumont, 2002; Fairburn, 1995; Johnson et al., 1983). Binge episodes are frequently planned, as evidenced by purchase and

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<sup>1</sup> For the purposes of this study, binge-eating episodes were self-labeled by study patients. According to the DSM-IV, 45 kcal would not qualify as a binge episode.

storage of food to be consumed at a time when individuals expect to be free from interruption and careful selection of foods that are easy to swallow and regurgitate. Generally food is eaten at a rapid pace, which slows as the episode progresses. Some idiosyncratic bingeing behaviors include eating in secret, concealing what has been eaten, “picking” behavior (eating small quantities at a time for hours), chewing food and then spitting it out, eating inappropriate food (scraps of food from the rubbish bin, raw or frozen foods), and leaving stacks of empty food containers or plastic bags filled with vomitus in plain view (Abraham & Beumont, 1982; Beumont, 2002).

Unlike normal dieters who might develop general guidelines about how they should eat, restricting AN and BN patients tend to develop extreme and highly specific dietary rules. These rules can involve a combination of avoiding eating, restricting the overall amount eaten, and eliminating certain types of foods (Fairburn, 1995, 2002). Moreover, these rules tend to be approached in a black-and-white or all-or-nothing fashion. Examples include classifying foods as good or bad, feeling either in control or out of control, and viewing foods as either dangerous or safe (Fairburn, 1995). According to Fairburn (1995), “Strict dieters feel that they *must* achieve this goal to the letter and that they have ‘failed’ each time they eat more than their ‘rules’ allow” (p. 47). With such strict and demanding rules of restraint, repeated “failure” is virtually inevitable. Consequently, AN and BN patients who fail to meet their dietary goals will often give up temporarily and binge. Thus, dieting according to strict rules tends to encourage a cycle of dieting and binge eating (Fairburn, 1995, 2002).

It has been suggested that eating-disordered individuals dichotomously categorize foods in terms of being “forbidden” or “permissible” (Kales, 1990; Ruggiero, Williamson, Davis, & Schundt, 1988). According to Knight and Boland (1989), self-defined “permissible” foods are considered safe by a dieter when consumed in reasonable amounts and need not be avoided when dieting. Conversely, “forbidden” foods are considered off-limits by an individual dieter, at least for the duration of a weight-reduction diet. Vegetables, fruit, yogurt, tofu, whole grains, cottage cheese, rice cakes, chicken, and fish are examples of foods that are often considered “permissible,” while “forbidden” foods might include cookies, bread, cake, candy, ice cream, chocolate, pizza, butter, and fried foods (Kales, 1990).

Feelings of guilt, fear, and anxiety and negative thoughts are frequently associated with “forbidden” foods (Gattellari & Huon, 1997; Rosen, Leitenberg, Gross, & Willmuth, 1985; Sunday, Einhorn, & Halmi, 1992). Sunday and colleagues (1992) found that compared to a control group of unrestrained eaters, individuals with eating disorders associated significantly more guilt with foods containing high or moderate levels of calories or fat. Caloric amounts and fat content were reported to be the primary sources of guilt in the ED groups, while participants in the control group were more likely to attribute food-related guilt to concerns about health, cholesterol, chemical additives, and reservations about consuming animal products.

### Treatment

In order to eliminate the cycle of strict dieting followed by binge eating, a regular pattern of eating must be established (Fairburn, 2002; Fairburn, Marcus, & Wilson, 1993;

Pike, Loeb, & Vitousek, 1996). In cognitive-behavioral therapy (CBT), patients are typically prescribed a regular pattern of eating from the onset of treatment. CBT for BN has been researched intensively (Agras, Walsh, Fairburn, Wilson, & Kraemer, 2005; Whittal, Agras, & Gould, 1999) and is generally regarded as the “gold standard treatment” of choice for BN (Agras et al., 2005; Fairburn et al., 1993; Wilson, 1999) and the recommended treatment for AN (Cooper, 1997; Vitousek, 2002; Wilson, 1999). Guidelines from the National Institute for Health and Clinical Excellence in the United Kingdom (NICE, 2004) specify that 16-20 sessions of CBT should be offered as a front-line treatment for adults with BN, and advise clinicians to consider CBT as a treatment for adults with AN.

According to Wilson (1999), effective treatment for BN involves “reducing dietary restraint in favor of more normal eating patterns, developing cognitive and behavioral skills for coping with high risk situations that trigger binge eating and purging, and modifying dysfunctional thoughts and feelings about the personal significance of body weight and shape” (p. 82). From the inception of treatment, a meal plan is established consisting of three meals and two to three snacks per day. Each meal and snack should be planned and patients are instructed to limit themselves to these planned eating occasions spaced at intervals of no more than three to four hours apart (Fairburn et al., 1993; Pike et al., 1996; Wilson, Fairburn, & Agras, 1997). According to the CBT treatment manual for binge eating and BN (Fairburn et al., 1993), prescribing a regular pattern of eating is the single most effective procedure in the treatment process. Initially, emphasis is placed on when patients eat, rather than what they eat. As treatment

progresses, however, patients are increasingly encouraged to eliminate extreme dieting and narrow food choices. Research has demonstrated consistently that high levels of dietary restraint play a causal role in the onset and maintenance of BN (Huon, 1996; Polivy & Herman, 1985; Stice & Agras, 1998; Stice, Presnell, & Spangler, 2002). Consequently, this phase of treatment focuses on the reintroduction of a patient's "forbidden" foods to his or her diet.

The reintroduction of avoided foods starts by identifying all foods that the patient has labeled as "forbidden." Patients are asked to list all the foods that they like but would be reluctant to eat, either because of the effect patients believe such foods might have on weight or shape, or because they fear that eating them might trigger a binge. Reintroduction involves progressively including these foods in the diet starting with the easiest and moving toward the most difficult foods (Fairburn, 1995; Fairburn et al., 1993; Pike et al., 1996).

In view of eating-disordered patients' determination to control their weight, their aversion toward fat, and their fear of losing control over eating (Vitousek, Watson, & Wilson, 1998), it is common for patients to react to efforts to change their eating behaviors with anger, deception, and manipulation (Beumont, 2002). Many express ambivalence about making changes. For example, an anorexic expressed the following concerns about changing:

Very scared to let go still. I can feel myself becoming fleshier again and sometimes this fills me with optimism as I see myself becoming stronger and eventually beginning to function as a woman again with women's

hormones and working ovaries! This goes hand in hand with me becoming more self-confident and I imagine that other people treat me with more respect because I'll be stronger. I'll feel more important and no longer feel like the cowering shadow in the corner. Other times I doubt that feeling fatter will make me feel better and instead will make me even more useless. It is at this point that my anorexic self tells me to stop eating so much again 'just in case' being bigger makes me feel worse. I can see it in myself at the moment. I can feel that I've put on weight and now I can feel myself fighting food again. I think I'm scared of losing control.

(Patient quoted in Treasure & Ward, 1997)

A further barrier to treatment, according to Vitousek, Daly, and Heiser (1991), is "the challenge of getting eating disorder clients to tell us what they think and feel—and the difficulty of trusting them when they do" (p. 647). This is especially problematic when patients lie about what they do and do not eat and the reasons why they do or do not eat. A personal account from a recovered anorexic illustrates this point:

I was becoming a master of excuses: "I'm not hungry . . . I don't like alcohol's affect on my brain . . . I don't have a sweet tooth . . . I can't face foods before noon . . ." The quick lies were coming so automatically now that one part of my brain began to believe them. (Johnston, 1993, p. 31)

It was simpler to be consistent: "I never eat bread with my meals . . . I

never eat desserts . . . I don't like potatoes . . . I like my salad without dressing." These were simple rules. Never mind that they were lies. I would turn them into truths by sheer act of will. (Johnston, 1993, p. 20)

Vitousek et al. (1991) suggest several relevant reasons for denial. It is common for bulimic patients to experience a sense of shame. Underreporting intake might be attributed to the belief that eating fattening foods is "greedy" or reveals a lack of self-control, that bingeing behaviors are disgusting, or that overeating represents a failure to make progress in treatment. Another reason for denial may be defensive. According to Garner (as cited in Vitousek et al., 1998) BN patients often resist the idea of giving up dieting and unrealistic weight standards. Vitousek et al. (1991) point out that inaccurate self-report may also be inadvertent. For example, patients may have obscured their own awareness of genuine food preferences independent of concerns about fat and calories. Conditioned aversion can occur when patients attach negative connotations to specific foods, often through a process of deliberate self-indoctrination; over time, many begin to find these foods genuinely aversive.

#### Current Measures

To date, most measures of ED symptoms have been developed to assess behaviors and/or beliefs (e.g. Eating Attitudes Test; Garner & Garfinkel, 1979; Three Factor Eating Questionnaire; Stunkard & Messick, 1985). It is also necessary, however, to develop adequate measures that specifically target fear and avoidance in order to better understand ED phenomena (e.g. differences between ED and normal/dieting populations,

differences between ED subtypes, and differences between individuals) and to aid in clinical assessment and treatment planning. While a few studies have attempted to examine fear and avoidance of foods in ED populations (Gattellari & Huon, 1997; Stice et al., 2002; Sunday et al., 1992), satisfactory measures of fear and avoidance are needed to capture differences between groups reliably. Better measures of fear and avoidance would also improve upon current methods of clinical assessment and treatment planning which often neglect to assess fear and avoidance or rely on unexamined means of patient recall or self-monitoring.

The Forbidden Food Survey (FFS; Ruggiero et al., 1988) was created to measure patients' anticipated emotional reaction to or fear of eating specific foods. Individuals with BN were asked how they would feel about themselves after eating each item on a list of 45 foods selected to be representative of foods consumed in the American diet. Nine items were included in each of the following food groups: meat, grain, fruit and vegetables, milk, and beverages. Items in each food group were further divided into three caloric levels of high, medium, and low caloric content. Examples of items in the milk food group included sour cream, hot fudge sundae, and milk shake (high calorie group); cheddar cheese, swiss cheese, and ice cream (medium calorie group); skim milk, yogurt, and cottage cheese (low calorie group). For each item, participants were asked to choose among the following options: (a) I would feel very good about myself after eating this food; (b) I would feel good about myself after eating this food; (c) I would feel neither good nor bad about myself after eating this food; (d) I would feel badly about myself after eating this food; (e) I would feel very badly about myself after eating this food.

According to Ruggiero et al. (1988), the FFS demonstrated good reliability and discriminant validity. In particular, purging bulimics consistently reported the strongest anticipated negative reactions to “forbidden” food types compared to non-purging bulimics and normals, as well as compared to obese and normal participants.

Use of the FFS to identify target foods, however, can be problematic for a number of reasons (Gonzalez, 2001). The FFS groups foods according to caloric content but does not consider fat content, although both are important factors in the fear and avoidance of forbidden foods (Sunday et al., 1992). The scale also utilizes awkward response categories. Individuals are prompted to choose whether a food makes them feel “good,” “bad,” or “neither good nor bad” about themselves. Presumably normal, non-restrained individual should show little fear or guilt in association with specific foods; however, it is not clear why they should feel “very good” about themselves for eating particular food items. In fact, Gonzalez (2001) points out that the optimal response to eating any food would be an absence of judgment about the associated “goodness” or “badness” of the self (p. 15). On the FFS, however, the “I would feel neither good nor bad about myself after eating this food” response falls squarely in the middle of the rating scale.

The FFS additionally fails to measure individuals’ actual avoidance of foods. While the FFS asks respondents to anticipate how they would feel after eating a particular food, it is not clear whether these reactions necessarily influence the decision to avoid the food or to purge following consumption of the food.

Finally, Gonzales (2001) points out that the FFS does not assess hedonic preference for various food items. In reintegrating foods into an AN or BN patient’s diet

over the course of treatment, an important distinction is made between foods that are avoided out of fear or guilt and those that are avoided out of genuine dislike that preceded ED onset. As a result of problems with food groupings, response categories, measurement of actual avoidance of foods, and disregard for hedonic food preferences, the FFS does not provide adequate information for the identification of target food items.

The Food Phobia Survey (FPS; Vitousek, 1998) is an alternative measure designed to identify the feared and forbidden foods of eating-disordered patients. A wide array of contemporary foods typically eaten by eating-disordered individuals as well as items that are typically avoided are listed. Patients rate each food item in terms of frequency eaten, guilt/fear associated with eating the food, and hedonic appeal. A preliminary evaluation of the FPS (Gonzalez & Vitousek, 2004) indicated that the FPS discriminates dieters from non-dieters on ratings of the fear/guilt associated with food items and the number of feared foods at various levels of perceived “fatteningness.”

The FPS was developed to improve on existing methods of identifying target foods for ED assessment and treatment. In addition to addressing some of the problems associated with Ruggiero’s FFS, the FPS includes a wider range of specific foods, including “contemporary” foods. Such items were chosen to represent food preferences of young women with and without an ED. Efforts were made to include (a) diet foods that are highly likely to be represented in the intake of ED and dieting individuals (e.g., rice cakes), (b) foods that are likely to be avoided because of their perceived high fat and/or calorie content (e.g., ice cream bar), and (c) foods that represent “transitional” choices (e.g., frozen yogurt) (Gonzalez & Vitousek, 2004). Inclusion of a wide range of

specific items across numerous food categories facilitates identification of target foods that match the preferences and concerns of a diverse clinical population (Gonzalez, 2001). Once target foods are identified, such information can be utilized in daily meal planning and to facilitate in vivo exercises such as ordering and eating a previously avoided food in a restaurant while accompanied by a therapist. The FPS may further be used as a therapeutic tool for assessing current food choices and food-related concerns, tracking changes in typical eating behavior and concerns over the course of treatment, constructing hierarchies for graded exposure, and evaluating treatment outcomes in terms of fear and avoidance of food items. Research with clinical populations is necessary to gauge the utility of the FPS for these purposes.

#### Present Study

This study is a preliminary examination of the properties of the FPS in a clinical sample of patients with AN, BN, or ED-NOS. Archival data from a sample of normal individuals (Gonzalez, 2001) was compared with data from a clinical population. It was anticipated that the FPS would discriminate between normal individuals and those with an ED, between restricting and bingeing sub-types, and between ED diagnoses. The FPS was also examined in conjunction with patient self-monitoring of dietary intake and two standardized measures of ED symptomatology: the Eating Disorder Examination (Fairburn & Cooper, 1993), a well-validated and widely used semi-structured interview that evaluates restraint, eating concern, and shape and weight concern, and the Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983), a self-report measure examining attitudes and behaviors related to drive for thinness, bulimia, and body dissatisfaction.

FPS data collected prior to and following CBT were analyzed additionally with the expectation that patient preferences for a variety of foods and their levels of fear and avoidance change over the course of CBT treatment.

The present study addresses several questions:

- 1) Does the FPS distinguish individuals with an ED diagnosis from previously collected samples of normal individuals?
- 2) Does the FPS discriminate between ED diagnoses?
- 3) Does the FPS discriminate between restricting and bingeing sub-types?
- 4) Do consumption patterns suggested by the FPS correspond to those reported by patients on self-monitoring forms and other ED measures?
- 5) Does the FPS demonstrate change over the course of CBT treatment?  
(exploratory)

## Chapter 2

### Method

#### Participants

##### Sample 1

For the principal study, FPS data were examined for 39 female patients who had been referred for an ED assessment at the Eating Disorder Clinic of the University of Hawai'i Center for Cognitive-Behavioral Therapy (CCBT). Participants included university students, adults from the community, and students from local high schools. Ages ranged from 15 to 53 with a mean age of 21.79 (see Table 2). Following assessment, 7 were diagnosed with BN, 14 with AN, 2 with binge eating disorder (BED), and 16 with ED-NOS (see Tables 1 and 3 for characteristics of the sample). One participant with no diagnosis was excluded from the study. Nine of the above mentioned participants both received treatment at the CCBT and subsequently completed the FPS at post-treatment. In the post-treatment group, 4 were previously diagnosed with AN and 5 with ED-NOS. Ages ranged from 16-34 with a mean age of 20.89.

##### Sample 2

During the earlier portion of the same time period, 79 female participants from undergraduate psychology courses at the University of Hawai'i also completed the FPS (Gonzalez & Vitousek, 2004). Participant ages ranged from 17-49 with a mean age of 21. Of these participants, 34 were classified as dieters on the basis of a positive response to a direct question about whether they were currently restricting their food intake for the

purpose of weight or shape control. Forty-five were classified as non-dieters because they had indicated that they were not currently restricting their eating and had scored below the 50<sup>th</sup> percentile on the cognitive restraint scale (EI-R) of the Eating Inventory (EI; Stunkard & Messick, 1988). Participants with unclear dieting/non-dieting patterns as well as those who indicated that they had been diagnosed with AN or BN at any point in the past were excluded from the study.

### Assessment Materials

#### Food Phobia Survey (FPS; Vitousek, 1998; see Appendix C)

The FPS is a 180-item self-report questionnaire designed to identify foods that are avoided by ED individuals. In order to avoid contamination of ratings through simultaneous consideration of several variables, the FPS is divided into two sections that are administered separately. In the first section, participants are presented with a list of 180 food items and asked to indicate “How frequently, on average, you have eaten that food over the past year?” and “How much you have feared eating or felt guilty about eating that food over the past year?” Participants are further instructed to rate fear/guilt independently of how often they have eaten the food or how much they like the food. Frequency ratings are based on a 5-point Likert scale consisting of “never,” “rarely,” “occasionally,” “often,” or “very often.” Fear/guilt is also rated on a 5-point Likert scale, with response options of “none,” “slight,” “moderate,” “strong,” and “very strong.” The second section, administered only after the first section is completed, instructs participants to rate the same 180 food items according to how desirable or appealing they find the food. Participants are instructed to indicate “How much you like the food purely

in terms of how much it appeals to you, independently from any other considerations about whether you consider the food healthy/unhealthy, safe/dangerous, fattening/slimming, cheap/expensive, easy/difficult, or ethical/unethical.” Desirability ratings are based on a 5-point Likert scale consisting of “not at all,” “slightly,” “moderately,” “considerably,” or “extremely.”

The 180 food items on the FPS can be divided into 12 food categories: dairy, breads and grains, snack foods, meats, entrees with meat, entrees without meat, salads and soups, vegetables, fruits, beverages, desserts, and condiments and sauces. Most of these categories contain equal numbers of food items representing low, medium, and high levels of perceived “fatteningness.” Food items were chosen and classified by expert judges who were familiar with ED patients’ eating practices and beliefs. Developers of the FPS (Vitousek, 1998) chose to focus on perceived “fatteningness” rather than actual calories or fat per serving based on standard tables. Perceived “fatteningness” was determined by a combination of caloric density and the amount of fat contained relative to other foods in the same category. According to Gonzalez and Vitousek (2004), an extensive range of foods was chosen to represent the dietary preferences of contemporary young women with and without an ED. In particular, “diet” foods commonly consumed by ED and dieting individuals (e.g., rice cakes), foods that are often avoided due to their perceived high levels of fat and/or caloric content (e.g., ice cream bar), and foods that are common “transitional” choices (e.g., frozen yogurt) were included. In order to more easily identify target foods that suit the preferences and concerns of a diverse patient population, the FPS incorporates 5-10 food items from each of the three levels of

perceived fatteningness (i.e., low, medium, and high) for each category of food (i.e., dairy, breads and grains, snack foods, meats, entrees with meat, entrees without meat, salads and soups, vegetables, fruits, beverages, desserts, and condiments and sauces.).

To date, only one study (Gonzalez & Vitousek, 2004) has examined psychometric properties of the FPS. In a sample of normal participants, test-retest reliabilities were calculated at one-week intervals for frequency of consumption, fear, and appeal for each food. For frequency of consumption, test-retest reliabilities ranged from 0.31 to 0.96, with 28% of items producing a coefficient between 0.50 and 0.69, and 69% producing a coefficient of 0.70 or greater. Test-retest correlations for fear and guilt ranged from 0.14 to 0.95, with 44% between 0.50 and 0.69, and 42% at 0.70 or higher. Appeal rating test-retest reliabilities ranged from 0.39 to 0.93, with 22% of items between 0.50 and 0.69, and 78% at 0.70 or greater.

Eating Disorder Examination, 12<sup>th</sup> Edition (EDE; Fairburn & Cooper, 1993; see Appendix C)

The EDE is a 22-item semi-structured clinical interview designed to evaluate the full range of ED behaviors and attitudes (Cooper & Fairburn, 1987; Rizvi, Peterson, Crow, & Agras, 2000). Generally considered the gold standard for the assessment of ED psychopathology (Black & Wilson, 1996), the EDE relies on interviewer ratings of patient behavior and attitude disturbances based on specific provided definitions. Behavioral symptoms such as binge eating and compensatory behaviors as well as disturbances in cognitions and attitudes over the past 4-week (28 day) period are targeted. The EDE has been revised a number of times and abbreviated to include only items that

are required for the assessment of key behavior, the creation of subscales, and the derivation of ED diagnoses (Fairburn & Cooper, 1993). Subscales in the current version include Restraint, Eating Concern, Shape Concern, and Weight Concern. Items in the Restraint subscales incorporate restraint over eating, avoidance of eating, food avoidance, dietary rules, and the desire to have an empty stomach. The Eating Concern subscale contains questions about: preoccupation with food, eating, or calories; fear of losing control over eating; social eating; eating in secret; and guilt about eating. Shape Concern consists of the desire for a flat stomach, importance of shape, preoccupation with shape or weight, dissatisfaction with shape, fear of weight gain, discomfort seeing one's own body, avoidance of exposing others to one's body, and feelings of fatness. Weight Concern evaluates the importance of weight, reaction to prescribed weighing, preoccupation with shape or weight, dissatisfaction with weight, and desire to lose weight (Fairburn & Cooper, 1993). Each item on the EDE consists of at least one mandatory probe question and a number of optional questions designed to assist the interviewer in eliciting sufficient information to make a satisfactory rating. Items are rated based on severity or frequency of occurrence at an operationally defined level of severity. Interviewers are provided with rating instructions for each item. Most items are rated on a seven-point scale with four or more clearly defined anchor points.

Several studies indicate good interrater reliability. In a group of AN, BN, and non-eating disordered individuals, Cooper and Fairburn (1987) reported correlation coefficients above 0.90 for all but three items of the then 62-item EDE (social eating, body composition, and pursuit of thinness). The body composition and pursuit of thinness

items have since been dropped from the most recent version of the EDE used in the present study. Similar studies examining EDE subscales in samples of BN or restrained participants indicate interrater reliability coefficients ranging from 0.83 (Bulimia Subscale) to 0.99 (Shape Concern Subscale) (Rosen, Vara, Wendt, & Leitenberg, 1990; Wilson & Smith, 1989). The Bulimia Subscale has also been deleted from the most current version of the EDE used in the present study.

Rizvi et al. (2000) examined interrater and test-retest reliability for the most current version of the EDE. The sample consisted of AN, BN, and BED patients. Interrater correlations of 0.95, 0.90, 0.99, and 0.94 were reported for the Restraint, Shape Concern, Weight Concern, and Eating Concern Subscales respectively. Interrater correlations for ED behaviors, including objective binge episodes, subjective binge episodes, and episodes of self-induced vomiting, ranged from 0.92 (subjective bulimic episodes) to 1.00 (vomit days and vomit episodes). Test-retest analyses were conducted at intervals of 2-7 days (median = 4 days) by a separate assessor who was blind to the content of the first interview. Test-retest correlations for the Restraint, Shape Concern, Weight Concern, and Eating Concern Subscales were 0.76, 0.76, 0.71, and 0.74 respectively. Test-retest correlations for ED behaviors ranged from 0.34 (subjective bulimic episodes) to 0.97 (vomit episodes).

A number of studies of discriminant validity indicate that the EDE discriminates well between patients with eating disorders and normal controls (Cooper, Cooper, & Fairburn, 1989) and between patients with BN and highly restrained controls (Rosen et al., 1990; Wilson & Smith, 1989). Rosen et al. (1990) further compared specific EDE

items and subscales (dietary restraint, overeating, eating concern, and self-induced vomiting) with participant eating behaviors derived from eating diaries. Eating diaries were maintained for a one week period; because EDE eating behaviors and attitudes are assessed over a 4-week interval, the one week of overlap between the two forms of measurement provides only an approximate measure of concurrent validity. In general, EDE subscales and items were found to be modestly correlated with self-report eating diaries (ranging from -0.22 for the restraint scale and self-reported frequency of eating snack foods, to 0.52 for the Eating Concern Subscale and self-reported caloric size of binge episodes), EDE ratings of vomiting were highly associated with self-reported frequency of vomiting episodes (0.90).

The EDE is suitable for use in both community and clinical settings. It has been used widely in descriptive studies and treatment research (Cooper & Fairburn, 1993).

#### Eating Disorder Inventory-2 (EDI-2; Garner, 1991; see Appendix C)

The EDI-2 is a self-report measure designed for the assessment of eating disorders. In addition to assessing symptomatology associated with AN and BN, the EDI-2 is also designed to assess psychological characteristics that are relevant to AN and BN (Garner, 1991). In its original version, the Eating Disorder Inventory (EDI, Garner & Olmstead; 1984) consisted of 64 items distributed across eight subscales. The EDI-2 consists of 91 questions factored into 11 subscales, with the first eight subscales directly derived from the original EDI. The Drive for Thinness, Bulimia, and Body Dissatisfaction subscales assess attitudes, cognitions, and behaviors regarding eating, weight, and body shape concerns. Specifically, the Drive for Thinness subscale evaluates excessive concern with

dieting, preoccupation with weight, and extreme pursuit of thinness (e.g. “I eat sweets and carbohydrates without feeling nervous,” “I am terrified of gaining weight,” “I am preoccupied with the desire to be thin”). The Bulimia subscale assesses tendency toward episodes of binge-eating that may be followed by compensatory behaviors such as vomiting (e.g. I have gone on eating binges where I have felt that I could not stop,” “I have the thought of trying to vomit in order to lose weight”). The Body Dissatisfaction subscale indicates the belief that specific body parts (e.g. hips, thighs, buttocks) are too large (e.g. “I think that my stomach is too big,” “I feel satisfied with the shape of my body,” “I like the shape of my buttocks”). The Ineffectiveness, Perfectionism, Interpersonal Distrust, Interoceptive Awareness, and Maturity Fears subscales measure common psychological aspects of eating disorders. Asceticism, Impulse Regulation, and Social Insecurity were later added as provisional subscales that evaluate personality traits that have been found to exist in subgroups of ED patients (Garner, 1991; Garner et al., 1983; Packianathan, Sheikh, Feben, & Finer, 2002).

Items are presented in questionnaire form and participants are instructed to answer based on a 6-point Likert Scale consisting of “always,” “usually,” “often,” “sometimes,” “rarely,” or “never.” As recommended for use with a clinical sample, items are scored on a scale of 0-3 (Shoemaker, Van Strien, & Staak, 1994; Van Strien & Ouwens, 2003). Responses most consistent with ED symptomatology receive a score of 3, the highest but one response a score of 2, the next response being awarded a 1, and the three least symptomatic responses all receiving scores of 0. Items are summed across subscales (Garner, 1991; Garner et al., 1983).

Good internal consistency for the original eight EDI subscales (Drive for Thinness, Bulimia, Body Dissatisfaction, Ineffectiveness, Perfectionism, Interpersonal Distrust, Introceptive Awareness, and Maturity Fears) has been reported in clinical populations with coefficient alphas ranging from 0.80 for the Perfectionism scale up to 0.91 for the Body Dissatisfaction scale. Coefficient alphas for the provisional subscales (Asceticism, Impulse Regulation, and Social Insecurity) range from 0.65-0.75 (Eberenz & Gleaves, 1994). In the general population, test-retest reliabilities for the subscales ranged from  $r=0.97$  for the Body Dissatisfaction subscale to  $r=0.81$  for the Interpersonal Distrust subscale, with the exception of the Maturity Fears subscale ( $r = 0.65$ ). Subjects within this sample who were considered to be at risk for an ED evidenced only minor differences in reliability for the subscales. Test-retest reliabilities for the subscales ranged from  $r=0.84$  for Introceptive Awareness subscale to  $r=0.96$  for the Body Dissatisfaction subscale, with the exception of the Maturity Fears subscale which produced a reliability value of  $r=0.77$ . Total scores in both the general population and the at-risk subset produced a reliability value of  $r=0.96$  (Wear & Pratz, 1987).

The EDI is frequently used for both research and treatment purposes. In research studies, it has been shown to be useful as a screening tool, a prognostic indicator, and an outcome measure. The EDI is also widely used in treatment planning and the monitoring of progress and recovery (Packianathan et al., 2002).

## Procedure

### Sample 1

The majority of patients who were referred for treatment at the CCBT Eating Disorder Clinic between January 2001 and November 2006 were asked to complete the FPS. Following an intake assessment interview and administration of the EDE, patients were provided with a number of standard questionnaires to be completed at home and returned during the following assessment session. Standard questionnaires relevant to this study included demographic information, the EDI (Garner, Olmstead, & Polivy, 1983), and the FPS (Vitousek, 1998). All patients who completed the FPS and were diagnosed with an ED were included in the study.

Assessment interviews were conducted by trained graduate students and supervised by a licensed clinical psychologist. The EDE (Fairburn & Cooper, 1993) was used in combination with other information to determine participant diagnoses. Additionally, participants were classified as restricting or bingeing sub-types. In the majority of cases, ED-NOS patients with a tendency toward restricting rather than bingeing (ED-NOS R) and anorexia nervosa, restricting type (AN-R) participants were classified as restricting sub-types. Likewise, in most cases, ED-NOS patients with a tendency toward bingeing (ED-NOS BP); anorexia nervosa, binge-eating/purging type (AN-BP); binge eating disorder (BED); and BN participants were classified as bingeing sub-types.

Based on diagnosis and availability of appropriate clinical staff, some participants were offered treatment at the center. Those who agreed to enter therapy were treated by a licensed clinical psychologist or graduate students trained in the delivery of CBT for EDs.

Throughout treatment, most participants were asked to maintain daily food records describing when they ate, what types of foods were eaten, and the amount of food consumed. The first ten days of 21 participant food records were compared to participants' self-report on the FPS. In most cases, consecutive dates were captured. In all but one case, participants were excluded if they did not complete 10 days of food records within the first two weeks of treatment. In the one exception, the participant resided on another island and consequently only traveled to CCBT to receive treatment on a monthly basis. As a result, therapy-related changes were assumed to occur slowly. All foods appearing on a participant's food record during the ten day period were listed along with the number of times each food was consumed.

Following the conclusion of treatment, 9 participants completed the FPS during a post-treatment assessment.

### Sample 2

During the first part of the same time period, data were also collected from female participants recruited from undergraduate psychology courses at the University of Hawaii. Data were collected by Vivian Gonzalez for the purpose of examining the properties of the FPS with a normal population (Gonzalez, 2001; Gonzalez & Vitousek, 2004). In a group setting, participants were instructed to complete the FPS followed by a background information questionnaire and various other instruments pertaining to their opinions of different foods and their eating habits. Based on participant scores on the EI-R and response to a direct question about whether they were currently restricting their food intake for the purpose of weight or shape control, participants were classified as dieters or

non-dieters. Those who indicated that they were not currently dieting but scored above the 50<sup>th</sup> percentile of the EI-R were excluded as well as participants who indicated that they had been diagnosed with AN or BN at any point in the past. Data from this sample were collected for a previous study; they are included here for general comparison between the responses of ED participants and those of college women from the same geographic area.

### Calculation of FPS Scores

Participant ratings of food items were calculated to form 5 dependent variables: frequency of consumption, fear/guilt, appeal, feared foods, and avoidance. Each of these scores was broken down into ratings of foods at low, medium, and high levels of perceived fatteningness. The frequency of consumption, fear/guilt, and appeal scores were calculated directly from participant ratings by taking the mean of individual food items at low, medium, and high levels of perceived fatteningness.

The feared foods and avoidance scores were derived from participant rating of the above three categories. Feared foods indicate the number of food items that are designated as feared at each level of perceived fatteningness. Food items were considered to be feared if a participant rated: a) frequency of consumption as never (“1”) or rarely (“2”) eaten, b) fear/guilt as strong (“4”) or very strong (“5”), and c) appeal as considerably (“4”) or extremely appealing (“5”). Designation of a food as feared indicates that avoidance, fear and guilt, and appeal are all highly associated with the food item. Those foods that did not meet the operational definition of feared were considered to be “not feared.”

For the purpose of this study, avoidance was defined as a discrepancy between the reported appeal of a food and the frequency in which that food was consumed. A Discrepancy Index for each food item was calculated from the frequency of consumption minus the appeal. The Positive Discrepancy Index consists of the mean of all positive scores. It indicates the extent to which patients eat foods more frequently than they find less appealing. The Negative Discrepancy Index consists of the mean of negative scores. It indicates the extent to which patients either do not eat or less frequently eat foods that they find appealing. Although frequency of consumption is not always linked to appeal (e.g. eating bread or rice everyday would not necessarily equate to finding bread or rice “extremely” appealing; similarly, one might find fresh cherries to be “extremely” appealing, but because cherries are in season only once a year, fresh cherries are likely to be “rarely” eaten.), trends are expected to be apparent across many foods. For the purpose of this hypothesis, the Negative Discrepancy Index was used to determine participants’ avoidance of appealing foods.

## Chapter 3

### Results

Prior to analysis, frequency of consumption, fear/guilt, appeal, EDI, and EDE were examined for accuracy of data entry and missing values using various SPSS programs. In cases where there were several missing values on the FPS, mean substitution was used to replace the mean for the individual's group on the given variable. Four participants completed at least one part of the FPS but failed to complete all three sections (frequency of consumption, fear/guilt, and appeal). In those cases, data from completed section(s) were included but feared foods and avoidance variables could not be calculated. Means and standard deviations for frequency of consumption, fear/guilt, appeal, feared foods, and avoidance are reported in Tables 5, 6, 7, 8 and 9.

Question 1: Does the FPS distinguish individuals with an ED diagnosis from previously collected samples of normal individuals?

Hypothesis 1: ED participants will report lower frequencies of consumption compared to dieting and non-dieting participants. From a list of 180 foods, participants were asked to use a 5-point Likert scale (1= "never," 2= "rarely," 3= "occasionally," 4= "often," 5= "very often") to rate "how frequently, on average, you have eaten that food over the past year?" A 3 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients, dieters, and non-dieters differed in their frequency of consumption according to how fattening foods were perceived to be. The within-subjects independent variable was mean frequency of consumption according to perceived level of fatteningness (low, medium, and high). The between-subjects independent variable was

population group (eating disordered, dieter, non-dieter). For within factors, multivariate tests (Wilks' Lambda) and their corresponding F values were obtained. A statistically significant main effect was found for frequency of consumption according to level of fatteningness ( $F(2, 111) = 22.74, p < .001$ ), but not for eating group ( $F(2, 112) = 2.74, p = .069$ ). Analysis yielded a significant interaction for eating group by frequency of consumption ( $F(4, 222) = 11.35, p < .001$ ) (see Figure 1 for mean scores by group and Table 4 for means and standard deviations). Tukey post-hoc tests indicated significant differences between ED and non-dieter frequency of consumption ratings at low levels of perceived fatteningness ( $p = .022$ ). For foods perceived to be at high levels of fatteningness, Tukey post-hoc tests revealed significant differences between ED and dieters ( $p = .001$ ) as well as between ED and non-dieters ( $p < .001$ ). No significant differences were found between ED, dieter, and non-dieter groups for foods at medium levels of fatteningness.

Hypothesis 2: ED participants will report higher levels of fear/guilt than dieting and non-dieting participants. From a list of 180 foods, participants were asked to use a 5-point Likert scale (1= "none," 2= "slight," 3= "moderate," 4= "strong," 5= "very strong") to rate "how much you have feared eating or felt guilty about eating that food over the past year?" A 3 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients, dieters, and non-dieters differed in their ratings of fear/guilt associated with foods according to how fattening the foods were perceived to be. The within-subjects independent variable was mean fear/guilt according to perceived level of fatteningness (low, medium, and high). Again, the between-subjects independent variable

was population group (eating disordered, dieter, non-dieter). A significant main effect was found for fear/guilt according to level of fatteningness ( $F(2, 111) = 157.49, p < .001$ ) and eating group ( $F(2, 112) = 46.43, p < .001$ ). Analysis of group by fear/guilt ( $F(4, 222) = 22.20, p < .001$ ) also yielded significant results (see Figure 2 for mean scores by group and Table 5 for means and standard deviations). Tukey post-hoc tests (at  $p < .05$ ) indicated significant differences between ED and non-dieters, ED and dieters, and dieters and non-dieters for fear/guilt ratings at low, medium, and high levels of perceived fatteningness.

Hypothesis 3: ED participants, dieting, and non-dieting participants will indicate equivalent ratings of appeal. From a list of 180 foods, participants were asked to use a 5-point Likert scale (1= “not at all,” 2= “slightly,” 3= “moderately,” 4= “considerably,” 5= “extremely”) to rate “If there were no relationship between this food and health, weight, or any other kinds of considerations, how appealing or desirable would this food be for you?” A 3 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients, dieters, and non-dieters differed in their appeal ratings associated with foods according to how fattening the foods were perceived to be. A significant main effect was found for appeal according to level of fatteningness ( $F(2, 110) = 9.80, p < .001$ ); however, no significant results were found for either eating group ( $F(2, 111) = 2.15, p = .121$ ) or for eating group by appeal ( $F(4, 220) = 1.80, p = .129$ ) (see Figure 3 for mean scores by group and Table 6 for means and standard deviations).

**Hypothesis 4: ED participants will identify a greater number of foods as associated with fear than dieting and non-dieting participants.** Items were classified as “feared foods” using participant ratings of frequency of consumption, fear/guilt, and appeal. A 3 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients, dieters, and non-dieters differed in the number of feared foods according to how fattening the foods were perceived to be. Significant main effects were found for feared foods according to level of fatteningness ( $F(2, 107) = 35.50, p < .001$ ) and eating group ( $F(2, 108) = 24.90, p < .001$ ). The ANOVA additionally yielded a significant interaction for eating group by feared foods ( $F(4, 214) = 11.61, p < .001$ ) (see Figure 4). Tukey post-hoc tests indicated significant differences between both ED and non-dieter populations ( $p = .001$ ) and ED and non-dieter populations ( $p < .001$ ) for feared foods at low levels of perceived fatteningness. For foods perceived to be at medium levels of fatteningness, Tukey post-hoc tests also revealed significant differences between ED and dieters ( $p < .001$ ) as well as between ED and non-dieters ( $p < .001$ ). Foods perceived to be at high levels of fatteningness indicated significant differences between all groups (at  $p < .05$ ).

**Hypothesis 5: ED participants will report more avoidance of appealing foods than dieting and non-dieting participants.** For the purpose of this study, avoidance was defined as a discrepancy between the reported appeal of a food and the frequency with which that food is consumed. The Negative Discrepancy Index consists of the mean of negative scores. It indicates the extent to which patients either do not eat or less frequently eat foods that they find appealing. A Negative Discrepancy Index for each food item was

calculated from the frequency of consumption minus the appeal. A 3 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients, dieters, and non-dieters differed in their avoidance of foods according to how fattening the foods were perceived to be. Significant main effects were found for the negative discrepancy index according to level of fatteningness ( $F(2, 107) = 23.41, p < .001$ ) and for eating group ( $F(2, 108) = 11.12, p < .001$ ). The ANOVA also yielded a significant interaction for eating group by negative discrepancy index ( $F(4, 214) = 7.78, p < .001$ ) (see Figure 5). Tukey post-hoc tests indicated significant differences between ED and dieter ( $p < .001$ ) and ED and non-dieter ( $p = .009$ ) negative discrepancy index at medium levels of perceived fatteningness. For foods perceived to be at high levels of fatteningness, Tukey post-hoc tests revealed significant differences between ED and dieters ( $p = .009$ ) as well as between ED and non-dieters ( $p < .001$ ). No significant differences were found between ED, dieter, and non-dieter groups for foods at low levels of fatteningness.

#### Question 2: Does the FPS discriminate between ED diagnoses?

Hypothesis 1: AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED participants will report increasingly higher frequencies of consumption. A 6 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their frequency of consumption according to how fattening foods were perceived to be. The within-subjects independent variable was mean frequency of consumption according to perceived level of fatteningness (low, medium, and high). The between-subjects independent variable was patient diagnosis (AN-R, AN-BP, BN, ED-NOS R, ED-NOS BP, and BED). For the purpose of this study, restrictive eating types were distinguished

from binge-eating types. A statistically significant main effect was found for frequency of consumption according to level of fatteningness ( $F(2, 29) = 18.17, p < .001$ ), but not for patient diagnosis ( $F(5, 30) = 2.07, p = .097$ ). There was no significant interaction for diagnosis by frequency of consumption ( $F(10, 58) = 0.64, p = .771$ ) (see Figure 6).

Hypothesis 2: AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED participants will report decreasingly lower levels of fear/guilt. A 6 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their ratings of fear/guilt associated with foods according to how fattening the foods were perceived to be. The within-subjects independent variable was mean fear/guilt according to perceived level of fatteningness (low, medium, and high). Again, the between-subjects independent variable was patient diagnosis (AN-R, AN-BP, BN, ED-NOS R, ED-NOS BP, and BED). A significant main effect was found for fear/guilt according to level of fatteningness ( $F(2, 29) = 55.37, p < .001$ ). Significant results were not obtained for diagnosis ( $F(5, 30) = 0.93, p = .475$ ) or for diagnosis by fear/guilt ( $F(10, 58) = 0.73, p = .698$ ) (see Figure 7).

Hypothesis 3: AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED will indicate equivalent ratings of appeal. A 6 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their appeal ratings associated with foods according to how fattening the foods were perceived to be. No significant results were found for appeal according to level of fatteningness ( $F(2, 28) = 1.07, p = .357$ ), diagnosis ( $F(5, 29) = 0.98, p = .445$ ) or for diagnosis by appeal ( $F(10, 56) = 0.92, p = .519$ ) (see Figure 8).

Hypothesis 4: AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED participants will identify a decreasingly fewer number of foods as associated with fear. A 6 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in the number of feared foods according to how fattening the foods were perceived to be. A significant main effect was found for feared foods according to level of fatteningness ( $F(2, 25) = 9.87, p = .001$ ). Significant results were not obtained for diagnosis ( $F(5, 26) = 1.55, p = .209$ ) or for diagnosis by feared foods ( $F(10, 50) = 1.38, p = .219$ ) (see Figure 9).

Hypothesis 5: AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED participants will report decreasingly less avoidance of appealing foods. A 6 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their avoidance of foods according to how fattening the foods were perceived to be. A significant main effect was found for the negative discrepancy index according to level of fatteningness ( $F(2, 25) = 7.24, p = .003$ ). Significant results were not obtained for diagnosis ( $F(5, 26) = 0.59, p = .711$ ) or for diagnosis by avoidance ( $F(10, 50) = 1.17, p = .331$ ) (see Figure 10).

Question 3: Does the FPS discriminate between restricting sub-types and binge sub-types?

Hypothesis 1: Restricting sub-types will report lower frequencies of consumption compared to binge sub-types. A 2 x 3 mixed between-within-subjects ANOVA was additionally conducted to determine whether ED patients differed in their frequency of consumption according to how fattening foods were perceived to be. The within-subjects

independent variable was mean frequency of consumption according to perceived level of fatteningness (low, medium, and high). The between-subjects independent variable was diagnostic sub-type (restricting and bingeing). A statistically significant main effect was found for frequency of consumption according to level of fatteningness ( $F(2, 33) = 30.96$ ,  $p < .001$ ), but not for sub-type ( $F(1, 34) = 3.66$ ,  $p = .064$ ). There was no significant interaction for sub-type by frequency of consumption ( $F(2, 33) = 0.40$ ,  $p = .674$ ) (see Figure 11).

Hypothesis 2: Restricting sub-types will report higher levels of fear/guilt than bingeing sub-types. A 2 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their fear/guilt associated with foods according to how fattening the foods were perceived to be. The within-subjects independent variable was mean fear/guilt according to perceived level of fatteningness (low, medium, and high). Again, the between-subjects independent variable was patient sub-type (restricting and bingeing). A significant main effect was found for fear/guilt according to level of fatteningness ( $F(2, 33) = 78.10$ ,  $p < .001$ ). Significant results were not obtained for sub-type ( $F(1, 34) = 0.66$ ,  $p = .422$ ) or for sub-type by fear/guilt ( $F(2, 33) = 0.49$ ,  $p = .618$ ) (see Figure 12).

Hypothesis 3: Restricting and bingeing sub-types will indicate equivalent ratings of appeal. A 2 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their appeal ratings associated with foods according to how fattening the foods were perceived to be. No significant results were found for

appeal according to level of fatteningness ( $F(2, 32) = 2.04, p = .147$ ), sub-type ( $F(1, 33) = 0.02, p = .879$ ) or for sub-type by appeal ( $F(2, 32) = 1.15, p = .331$ ) (see Figure 13).

Hypothesis 4: Restricting sub-types will identify a greater number of foods as associated with fear than bingeing sub-types. A 3 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their quantity of feared foods according to how fattening the foods were perceived to be. A significant main effect was found for feared foods according to level of fatteningness ( $F(2, 29) = 16.22, p < .001$ ); however, neither sub-type ( $F(1, 30) = 0.50, p = .483$ ) nor sub-type by feared foods ( $F(2, 29) = 0.18, p = .839$ ) yielded significant results (see Figure 14).

Hypothesis 5: Restricting sub-types will report more avoidance of appealing foods than bingeing sub-types. A 2 x 3 mixed between-within-subjects ANOVA was conducted to determine whether ED patients differed in their avoidance of foods according to how fattening the foods were perceived to be. A significant main effect was found for the negative discrepancy index according to level of fatteningness ( $F(2, 29) = 13.64, p < .001$ ). Significant results were not obtained for sub-type ( $F(1, 30) = 0.88, p = .356$ ) or for sub-type by avoidance ( $F(2, 29) = 0.40, p = .672$ ) (see Figure 15).

Question 4: Do consumption patterns suggested by the FPS correspond to those reported by ED patients on self-monitoring forms and other ED measures?

Hypothesis 1: ED patients' self-monitoring of dietary intake will correspond with FPS frequency ratings for high, medium, and low fat food groups. Prior to the start of treatment, participants were asked to complete the FPS. In addition, at the start of CBT

treatment, participants were asked to begin recording their daily dietary intake in the form of food records. Data were reviewed qualitatively for patterns in several ways.

First, the total number of different foods represented in 10 days of a participant's food record was compared to the number of foods endorsed by the participant as being consumed "rarely" to "very often" and "occasionally" to "very often" on the FPS. The mean number of unique foods reported across 10 days of participant FRs was 43.62 (SD=13.56). Out of 180 foods represented on the FPS, a mean of 109.81 (SD=35.93) foods were reportedly consumed "rarely" to "very often." A mean of 57.04 (SD=20.69) foods were rated as consumed "occasionally" to "very often" (see Table 7). The number of unique foods reported on the FRs was not significantly correlated with the number of foods endorsed on the FPS at frequencies of "rarely" to "very often" [ $r(21) = .01, p = .974$ ] or "occasionally" to "very often" [ $r(21) = .20, p = .392$ ]. Of the unique foods reported across 10 days of FRs, mean number of foods in the low, medium, and high levels of perceived fatteningness are as follows: 16.24 (SD=5.50), 13.38 (SD=4.01), 12.71 (SD=5.21). Similar trends were evident for FPS low, medium, and high means for both the "rarely" to "very often" (see figure ?) and the "occasionally to "very often" (see figure ?) frequencies (see Table 8).

Second, each food appearing on a participant's food record was checked for its presence on the FPS. Of the foods listed on individual participants FRs, 71.1% to 93% (mean 81.7%, SD=6.48) were part of the 180-item FPS food list. Some commonly occurring FR items that do not exist on the FPS include: pineapple, hard candy, haupia, jam, pickles, salsa, whipped cream, and honey. A mean of 81.58% (SD=15.96) of items

listed on a participant FR received corresponding FPS frequency ratings of “rarely” to “very often” consumed. 54.42% (SD=20.23) of those same items received a corresponding FPS frequency rating of “occasionally” to “very often” consumed.

Finally, a series of cross-checks comparing the frequency of consuming specific food items as reported on food records and the FPS were conducted. (For example, a food record indicating that oatmeal is consumed every day should correspond to an FPS frequency rating of “very often.”). A Pearson’s correlation between the FPS frequency ratings and the number of times an item was reported on a FR yielded significant results [ $r(755) = .337, p < .001$ ]. Inspection of participant FRs and FPS frequency ratings indicated that they generally corresponded to one another. For example, participants who reported consuming cereal an average of once per day or more also reported FPS frequency ratings of “often” or “very often.” Likewise, those who reported eating popcorn (regular, buttered) 1 to 3 times over the course of 10 days indicated FPS frequencies of “rarely.” One exception appeared to occur with “binge-type” foods. Candy bars, potato chips (regular), snack cakes, hamburger, and french fries were often given FPS frequency ratings of “never” despite appearing on FRs 2 or more times over the course of 10 days. Among FPS items reported to be consumed “never,” 8.34% were listed on corresponding FRs at least twice over the 10 day period.

Hypothesis 2: ED participants’ FPS fear/guilt ratings at high, medium, and low fat food groups will correlate with EDE Fear of Losing Control Over Eating and Guilt About Eating items. Prior to the start of treatment, participants completed the FPS which includes ratings of “how much you have feared eating or felt guilty about eating” specific

foods over the past year. At this time, the EDE was also administered. The Fear of Losing Control Over Eating item asks participants to use a 7-point Likert scale (0= “no fear of losing control,” 2= “fear of losing control present on less than half the days,” 4= “fear of losing control present on more than half the days,” 6= “fear of losing control every day”) to rate “Over the past 4 weeks, have you been afraid of losing control over eating?” The Guilt About Eating item of the EDE asks participants to use a 7-point Likert scale (0= “no guilt after eating,” 2= “has felt guilty after eating on less than half the occasions,” 4= “has felt guilty after eating on more than half the occasions,” 6= “has felt guilty after eating on every occasion”) to rate the following item: “Over the past 4 weeks, have you felt guilty after eating? Have you felt that you have done something wrong? Why? On what proportion of the times that you have eaten have you felt guilty?” Pearson’s correlations were computed between the two EDE items and patient FPS ratings of fear/guilt associated with foods according to how fattening the foods were perceived to be. No significant correlations were found between the Fear of Losing Control Over Eating item and fear/guilt ratings at low [ $r(26) = .18, p = .384$ ], medium [ $r(26) = .18, p = .369$ ], or high [ $r(26) = .07, p = .740$ ] levels of perceived fatteningness. Correlations between the EDE Guilt About Eating item and fear/guilt ratings at low [ $r(26) = .07, p = .729$ ], medium [ $r(26) = -.06, p = .791$ ], or high [ $r(26) = -.17, p = .397$ ] levels of perceived fatteningness also did not yield significant results.

Hypothesis 3: ED participants’ FPS discrepancy between appeal of food and frequency of consumption at low, medium, and high fatteningness food groups will correlate with EDE Food Avoidance item. As noted earlier, the Negative Discrepancy

Index of the FPS is intended to assess participants' avoidance of appealing foods. The Food Avoidance item of the EDE asks participants to use a 7-point Likert scale (0= "no attempts to avoid food," 2= "attempted to avoid food on less than half the days," 4= "attempted to avoid food on more than half the days," 6= "attempted to avoid food every day") to rate the following item: "Over the past 4 weeks, have you tried to avoid eating any foods that you like, whether or not you have succeeded? Has this been to influence your shape or weight?" Pearson's correlations were computed between the EDE Food Avoidance item and patients' avoidance of foods according to how fattening the foods were perceived to be. A significant correlation was found between the Food Avoidance item and the negative discrepancy index at high levels of perceived fatteningness [ $r(22) = -.47, p = .029$ ]. No significant correlations were found at medium [ $r(22) = -.42, p = .051$ ] and low [ $r(22) = -.28, p = .203$ ] levels.

Hypothesis 4: ED participants' FPS frequency of consumption, fear/guilt, and avoidance of foods at high, medium, and low food groups will correlate with EDE subscale and total scores. Pearson's correlations were computed between EDE scores (Restraint, Eating Concern, Shape Concern, Weight Concern, Total) and FPS mean scores for frequency of consumption, fear/guilt, appeal, feared foods, and avoidance at high, medium, and low levels of perceived fatteningness. A number of correlations between FPS scores and EDE scores were significant at  $p < .05$ . The EDE Restraint subscale was significantly correlated with the FPS frequency of consumption at medium ( $r = -0.53$ ) and high ( $r = -0.58$ ) levels, Fear at medium ( $r = 0.50$ ) and high ( $r = 0.43$ ) levels, feared foods at medium ( $r = -0.56$ ) and high ( $r = -0.73$ ) levels, and avoidance at

medium ( $r = 0.54$ ) and high ( $r = 0.63$ ) levels. The Eating Concern subscale was significantly correlated with frequency of consumption at the medium level ( $r = -0.53$ ), feared foods at the high level ( $r = -0.43$ ), and avoidance at low ( $r = 0.44$ ) and high ( $r = 0.43$ ) levels. The Shape Concern subscale was significantly correlated with frequency of consumption at medium ( $r = -0.44$ ) and high ( $r = -0.39$ ) levels; fear at low ( $r = 0.45$ ), medium ( $r = 0.57$ ), and high ( $r = 0.45$ ) levels; feared foods at the high level ( $r = -0.59$ ); and avoidance at low ( $r = 0.44$ ), medium ( $r = 0.59$ ), and high ( $r = 0.60$ ) levels. The Weight Concern subscale was significantly correlated with fear at low ( $r = 0.48$ ) and medium ( $r = 0.54$ ) levels; appeal at the high level ( $r = 0.45$ ); feared foods at medium ( $r = 0.47$ ) and high ( $r = 0.58$ ) levels; and avoidance at low ( $r = 0.48$ ), medium ( $r = 0.64$ ), and high ( $r = 0.59$ ) levels. The EDE total score was significantly correlated with frequency of consumption at medium ( $r = -0.55$ ) and high ( $r = -0.47$ ) levels; fear at low ( $r = 0.43$ ), medium ( $r = 0.56$ ), and high ( $r = 0.39$ ) levels; feared foods at medium ( $r = -0.49$ ) and high ( $r = -0.69$ ) levels; and avoidance at low ( $r = 0.52$ ), medium ( $r = 0.65$ ), and high ( $r = 0.67$ ) levels.

Hypothesis 5: ED participants' FPS frequency of consumption, fear/guilt, and avoidance of foods at high, medium, and low food groups will correlate with EDI subscale scores. A Pearson's correlation coefficient was used to compare participant responses to FPS frequency of consumption, fear/guilt, and avoidance of foods at high, medium, and low food groups with EDI subscale scores (Drive for Thinness, Bulimia, and Body Dissatisfaction). A number of correlations between FPS and EDI scores were significantly correlated at  $p < .05$ . The EDI Drive for Thinness subscale was significantly

correlated with the FPS frequency of consumption at high level ( $r = 0.40$ ), fear at high level ( $r = -0.42$ ), feared foods at medium ( $r = 0.48$ ) and high ( $r = 0.54$ ) levels, and avoidance at medium ( $r = -0.44$ ) and high ( $r = -0.53$ ) levels. The Bulimia subscale was significantly correlated with appeal at medium ( $r = 0.43$ ) and high ( $r = 0.37$ ) levels. The Body Dissatisfaction subscale was not significantly correlated with any of the FPS scales.

Question 5 (Exploratory): Does the FPS demonstrate change over the course of CBT treatment?

Nine participants completed both pre-treatment and post-treatment FPS measures. Due to limitations in sample size, treatment effects could not be analyzed formally. On an exploratory basis, however, the following hypotheses were also explored:

Hypothesis 1: Participants will report higher frequencies of consumption after completion of CBT treatment. Mean frequency of consumption was calculated to examine whether ED patients differed at pre and post treatment according to how fattening foods were perceived to be (see Figure 16 for mean scores by group and Table 9 for means and standard deviations). At post-treatment participants reported a decrease in consumption of low fatteningness foods and an increase in consumption of high fatteningness foods compared to pre-treatment ratings. Minimal change was apparent at medium levels of fatteningness.

Hypothesis 2: Participant levels of fear associated with foods will decrease following CBT treatment. Mean ratings of fear/guilt associated with foods were calculated to examine whether ED patients differed at pre and post treatment according to how fattening foods were perceived to be (see Figure 17 for mean scores by group and

Table 9 for means and standard deviations). Compared to pre-treatment, post-treatment ratings of fear/guilt decreased at low, medium, and high levels of fatteningness with the greatest amount of change at the high level.

Hypothesis 3: Participants will report equivalent ratings of appeal at pre-treatment and post-treatment. Mean ratings of appeal associated with foods were calculated to examine whether ED patients differed at pre and post treatment according to how fattening foods were perceived to be (see Figure 18 for mean scores by group and Table 9 for means and standard deviations). Compared to pre-treatment, post-treatment ratings of appeal decreased at low, medium, and high levels of fatteningness with the greatest amount of change at the medium and high levels.

Hypothesis 4: Participants will identify fewer foods as associated with fear after completion of CBT treatment. The mean number of foods designated as feared was calculated to examine whether ED patients differed at pre and post treatment according to how fattening foods were perceived to be (see Figure 19 for mean scores by group and Table 9 for means and standard deviations). Compared to pre-treatment, fewer foods were designated as feared at post-treatment at low, medium, and high levels of fatteningness with the greatest amount of change at the high level.

Hypothesis 5: Participants will report less avoidance of appealing foods after completion of CBT treatment. Mean ratings of avoidance associated with foods were calculated to examine whether ED patients differed at pre and post treatment according to how fattening foods were perceived to be (see Figure 20 for mean scores by group and Table 9 for means and standard deviations). At post-treatment, participants reported a

minimal increase in avoidance of low fatteningness foods and a decrease in avoidance of high and medium fatteningness foods compared to pre-treatment ratings.

## Chapter 4

### Discussion

The current study was designed as a preliminary investigation of the properties of the FPS in a clinical sample. Because few studies have attempted to examine fear and avoidance of foods in the ED population (Gattellari & Huon, 1997; Stice et al., 2002; Sunday et al., 1992), further development of satisfactory measures for fear and avoidance is necessary in order to improve upon current methods of clinical assessment and treatment planning. Several findings from this study suggest that the FPS may be a helpful tool for assessing ED food choices and food-related concerns.

As predicted, participants who were diagnosed with an ED were found to associate more fear, guilt, and avoidance with food items compared to dieting and non-dieting participants. Compared to dieters and non-dieters, ED participants reported higher frequency of consumption for food items perceived to be in the low fatteningness group. As expected, foods in the medium and high levels were reportedly consumed less often by the ED group compared to dieters and non-dieters. While non-dieters reported the highest frequencies of consumption for items in the medium group, both dieters and ED participants indicated highest frequencies of consumption for the low food group and lowest frequencies for the high group. Level of perceived fatteningness was found to have a significant effect on frequency of consumption.

All three participant groups evidenced increasing levels of fear and guilt at each level of perceived fatteningness. ED participants reported higher ratings of fear and guilt at all levels of fatteningness compared to dieters and non-dieters. As predicted, level of

perceived fatteningness was also found to have a significant effect on fear and guilt. Consistent with these findings, Sunday, Einhorn, and Halmi (1992) found that those with eating disorders associated higher levels of guilt with many common foods compared to unrestrained eaters. These feelings of guilt were especially apparent with respect to foods that were perceived as being high in fat or caloric content.

Although ED ratings of appeal at all levels of fatteningness were higher than dieter and non-dieter ratings, no significant differences were found between ED, dieter, and non-dieter ratings of appeal. Because participants were instructed to rate food items as if “there were no relationship between this food and health, weight, or any other kinds of considerations,” no differences based on ED diagnosis, dieting, or non-dieting status were expected. This is also consistent with findings of Sunday et al. (1992) that preference ratings of ED patients, when asked to imagine foods to be free of calories, are similar to preference ratings of unrestrained eaters for actual high-calorie foods. This suggests that abnormal preference patterns of the eating disordered normalize when the relationship between calories and food is removed hypothetically.

Measures of avoidance and feared foods yielded higher scores for ED participants compared to dieters and non-dieters. Level of perceived fatteningness was found to have a significant effect on both avoidance and quantity of feared foods. While all three groups evidenced an increasing number of feared foods at each level of perceived fatteningness, only ED participants and dieters showed similar trends in avoidance. Unlike EDs and dieters, non-dieters were found to have higher levels of avoidance for both low and high perceived fattening foods compared to medium level items.

Pinel's positive-incentive theory of hunger suggests that people are compelled to eat by the anticipated pleasure of eating (Pinel, Assanand, & Lehman, 2000). Sweet, fatty, and salty tastes are usually characteristic of foods that, in nature, are rich in energy, essential vitamins, and minerals. Consequently, people will normally consume such highly palatable foods when they are available because they are wired to find pleasure in this behavior. While many factors might influence a food's positive incentive value, the most important is anticipated taste. In the case of eating disorders in which extreme restraint is involved, Pinel suggests that the characteristic decline in eating is likely the result of a corresponding decline in the positive-incentive value of food (Pinel, Assanand, & Lehman, 2000).

In the current study, ED participants' ratings of hedonic appeal were retained at levels comparable to dieters and non-dieters when caloric consequences were hypothetically removed. Actual dietary choices, however, evidenced decreased consumption of foods perceived to be in the high and medium fatteningness groups and subsequent increases in ratings of fear and avoidance of these foods. These findings suggests that while dietary choices are largely based on caloric consequences, hedonic appeal remains at normal levels.

Differences between groups in the clinical population were less evident. No significant differences in FPS scores were found between restrictive eaters and non-restrictive eaters or between ED diagnoses (AN-R, AN-B, BN, ED-NOS R, ED-NOS B, and BED). As perceived fattening levels increased, fear, avoidance, and number of feared

foods tended to increase. On the other hand, frequency of consumption decreased with increasing levels of perceived fatteningness. No trends in appeal ratings were evident.

Means scores of participants who completed CBT treatment suggested decreasing fear ratings, appeal ratings, number of feared foods, and avoidance. Trends in post-treatment frequency of consumption means suggested a decrease in consumption of low fatteningness foods and an increase in consumption of high fatteningness foods. Although treatment effects could not be analyzed formally due to limitations in sample size, apparent trends suggest desirable cognitive, affective, and behavioral changes following CBT treatment.

The FPS compared well to self-reported daily food records and “gold standard” measures of ED symptomatology. When placed side by side with participant food records, FPS food items were found to represent a large majority of the foods that were actually being consumed on a daily basis by ED participants. Furthermore, most of the FR food items appeared to receive correspondingly appropriate FPS frequency ratings. Although FPS and EDE measures of fear and guilt were not significantly correlated, measures of avoidance at high levels of perceived fatteningness were significantly correlated; avoidance at medium levels was also marginally significant.

There are several possible explanations for the lack of correspondence between FPS and EDE fear and guilt items. First, although the phrasing of FPS and EDE questions is very similar, the content of the questions diverges in two respects. The FPS refers to feelings of fear and guilt over the past year while the EDE focuses on the past 4 weeks. In addition, the FPS asks whether participants have felt guilt “about” eating, while the EDE

asks about guilt “after” eating. Second, the self-report questionnaire FPS and the interviewer-administered EDE differ in format. In assessing EDs, it has been argued that interviews are preferred to self-report questionnaires because of the complexity involved in evaluating concepts such as loss of control, fear, and guilt (Cooper & Fairburn, 1987). On the other hand, self-report questionnaires have a number of advantages; for example, it might be experienced as too personally intrusive and embarrassing to admit abnormal beliefs or behaviors to an interviewer (Fairburn & Beglin, 1994). Finally, the FPS and EDE differ in rating formats. The FPS asks about the quality of fear/guilt. For example, the FPS response most indicative of ED symptomatology equates to a rating of “very strong.” The EDE, on the other hand, asks about the quantity of fear/guilt experienced. The corresponding EDE response most consistent with ED symptomatology is a rating of “has felt guilty after eating on every occasion.” Incongruent FPS and EDE ratings might result if a participant experienced “slight” guilt “everyday,” or “very strong” guilt on “less than half the days.” Despite the lack of relationship between FPS and EDE fear/guilt items, a number of EDI and EDE subscales were significantly related to FPS scores, suggesting areas of correspondence across these measures.

The results of this study are consistent with a number of other findings indicating cognitive, affective, and behavioral differences between normal and eating-disordered individuals. In the current study, ED participants reported increasingly higher ratings of fear, guilt, avoidance, and quantity of feared foods in association with low, medium, and high levels of perceived fatteningness respectively. Behaviorally, ED participants also reported frequency of consumption patterns that decreased with each increase in level of

perceived fatteningness. A number of other studies have found progressively more negative changes in cognition, affect, and behavior to be associated with foods higher in caloric and/or fat content (Rosen et al., 1995; Ruggiero et al, 1988; Sunday et al., 1992). These findings support the idea that the perceived fatteningness of foods is strongly associated with feelings of fear and guilt in addition to behavioral dietary choices.

Within the clinical population, the current findings did not differentiate between restricting and bingeing participants or among specific ED diagnoses. Several possibilities might account for these observations. First, the findings are based on very small samples of individuals in specific diagnostic categories. Second, considerable fluidity within ED diagnoses may create difficulties when examining subtle differences between groups. Over time, it is not uncommon for an individual's ED symptomatology to vary markedly and consequently for his or her diagnoses to change with time (Fairburn & Walsh, 2002). Attempts at sustained restraint are extremely difficult (Kalm and Semba, 2005; Vitousek et al., 2005). As a result, over time, ED patients typically develop a pattern of restrictive eating interspersed with episodes of binge eating (Abraham & Beumont, 1982; Fairburn, 2002). The difficulty involved in sustaining a pattern of restrained eating and the fluid nature of ED symptoms may partially explain the lack of differences found in this study. Third, despite the emphasis of DSM-IV on distinctions between diagnostic categories, many more core symptoms unite the various forms of eating disorders than separates them (Fairburn & Bohn, 2004; Fairburn et al., 2003; Walsh & Garner, 1997). Examples of overlap include extreme dietary restraint and restriction, binge eating, self-induced vomiting and laxative misuse, excessive exercising, body checking and avoidance, and

over-evaluation of control over eating, shape, and weight. These similarities are further compounded by patients' movement between these diagnostic states over time (Fairburn & Bohn, 2004; Fairburn et al., 2003).

A number of ED experts have suggested that a new “transdiagnostic” designation should be considered (Beumont, Garner, & Touyz, 1994). Waller (1993) argues that the current diagnostic criteria are inadequate for the purposes of clinical utility, differentiation, and treatment planning. Fairburn, Cooper, and Shafran (2003) propose that rather than emphasizing divisions between AN, BN, and ED-NOS, a new system might unite these diagnoses under the single designation of “eating disorder.” Based on the rationale that common mechanisms are involved in the maintenance of AN, BN, and ED-NOS, this system would have the advantage of focusing on pathological features and maintaining processes to dictate treatment content rather than a specific ED diagnosis which may carry little relevance for specific therapeutic components (Fairburn et al., 2003).

The FPS compared favorably to self-reported daily food records and “gold standard” ED measures such as the EDE and the EDI. Given the challenge of including an appropriate range of foods in a multicultural community like Hawaii, the FPS captured an impressive majority of the food items reportedly eaten by ED individuals on a day-to-day basis. Most of the FR food items appeared to receive correspondingly appropriate FPS frequency ratings. These findings converge to suggest the potential utility of the FPS with a clinical population. Further research with a larger clinical sample is necessary to

examine the properties of the instrument with a broad range of patients followed over time.

The current study was limited by very small samples of individuals. While many of the predicted relationships were found, protection against repeated measures was not included because of the preliminary nature of this study. For the same reason, the less conservative significance level of  $p < .05$  was used. The convergence of the fact that most predictions held, however, suggests that the trends repeatedly evident in these data were probably not due to chance. Because of the preliminary nature of this study, these decisions were made with the goal of identifying patterns that might be explored further in the future.

In addition to small sample size, limitations of this study also included problems with the accuracy of self-report data. Lack of reliability when collecting diet information has been widely researched. A number of reasons have been cited to explain the challenges encountered in collecting accurate self-report data about dietary intake. They include the difficulty of making accurate estimations of portion size and caloric content (Lenfant & Ernst, 1994), deliberate misrepresentation (Huse & Lucas, 1984; Klesges, Eck, & Ray, 1995), and failures of recall memory (Klesges, Eck, & Ray, 1995). In the ED field, deliberate misrepresentation can be particularly problematic (Van Binsbergen et al., 1988; Vitousek, Daly, & Heiser, 1991; Wilson & Vitousek, 1999). According to Van Binsbergen et al. (1988), ED patients in general and AN participants in particular, are often regarded as being less open and truthful about their eating behavior; on the other hand, because individuals with AN are preoccupied with food and eating patterns and

often consume rigid diets, they may also be able to recall food more accurately than the general population.

Despite the limitations involved in self-report of dietary intake, many researchers believe that given sufficient time and an adequate approach, it is possible to elicit fairly reliable information (Huse and Lucas, 1984; Wilson & Vitousek, 1999). Future validation studies of the FPS might utilize a standard 24-hour recall to collect information on participants' daily eating habits in addition to examining consecutive food records. Test-retest data are also needed to examine the reliability of the FPS in clinical populations over brief intervals.

The Food Phobia Scale appears to have promise as a useful research, assessment, and therapeutic tool. An adequate measure targeting fear and avoidance is important in order to better understand ED phenomena, improve upon current methods of clinical assessment, track changes in treatment, and assist in treatment planning. Covering a wide variety of common foods, the FPS may be a valuable way to efficiently collect accurate information.

## Appendix A

### Tables

Table 1.

Participant Ethnicity

Self-identification <sup>a</sup>	Eating Disorder		Dieters		Non Dieters		Total	
	n	%	n	%	n	%	n	%
Japanese	7	17.9	10	29.4	21	46.7	38	32.2
Chinese	1	2.6	4	11.8	7	15.6	12	10.2
Filipino	0	0	7	20.6	1	2.2	8	6.8
Vietnamese	0	0	2	5.9	2	4.4	4	3.4
Lao	0	0	0	0	1	2.2	1	0.9
Korean	0	0	2	5.9	1	2.2	3	2.5
Mixed Asian-American <sup>b</sup>	9	23.1	1	2.9	1	2.2	11	9.3
Hawaiian	1	2.6	3	8.8	1	2.2	5	4.2
Caucasian	21	53.8	4	11.8	8	17.8	33	27.9
African-American	0	0	0	0	1	2.2	1	0.9
Latino	0	0	1	2.9	1	2.2	2	1.7

<sup>a</sup>Ethnic group classification for multiethnic participants was made according to self-reported ethnic group of closest identification. <sup>b</sup>Mixed Asian-Americans refer to those who did not choose one ethnic group of closest identification.

Table 2.

Participant Characteristics

Characteristic	Eating Disorder n=39		Dieters n=34		Non Dieters n=45		Total n=118	
	n	%	n	%	n	%	n	%
<u>Age (years)</u>								
15-19	18	46.2	17	50	23	51.1	58	49.2
20-29	12	30.8	14	41.2	19	42.2	45	38.1
30-39	1	2.6	2	5.9	2	4.4	5	4.2
40-49	5	12.8	1	2.9	1	2.2	7	5.9
50-53	3	7.7	0	0	0	0	3	2.5
<u>Body Mass Index</u>								
14-19	19	48.7	15	33.3	10	29.4	44	37.3
20-25	16	41.0	26	57.8	17	50	59	50.0
26-29	2	5.2	2	4.4	5	14.7	9	7.6
30-39	2	5.2	2	4.4	2	5.8	6	5.1
<u>Vegetarian Diet<sup>a</sup></u>								
Non-vegetarian	24	61.5	29	85.3	42	93.3	95	80.5
Poultry/fish only	7	17.9	3	8.8	2	4.4	12	10.2
Fish only	1	2.6	0	0	0	0	1	0.9
Lacto-ovo	2	5.1	2	5.9	1	2.2	5	4.2

Other	1	2.6	0	0	0	0	1	0.9
No answer	4	10.3	0	0	0	0	4	3.4

<sup>a</sup>Vegetarian Diet classifications were based on self-report at the time of assessment.

Table 3.

Characteristics of Eating Disorder Participants

Characteristic	Pre-Treatment n=39		Post-Treatment n=9	
	n	%	n	%
<u>Diagnosis</u>				
AN-R	10	25.6	2	22.2
AN-BP	4	10.3	2	22.2
BN	7	17.9	0	0
ED-NOS R	5	12.8	3	33.3
ED-NOS BP	11	28.2	2	22.2
BED	2	5.1	0	0
<u>Sub-Type</u>				
Restricting	15	38.5	5	55.6
Binging	24	61.5	4	44.4
<u>Body Mass Index</u>				
14-19	19	48.7	5	55.6
20-25	16	41.0	4	44.4

Characteristic	Pre-Treatment n=39		Post-Treatment n=9	
	n	%	n	%
26-29	2	5.2	0	0
30-39	2	5.2	0	0
<b><u>Age (years)</u></b>				
15-19	18	46.2	5	55.6
20-29	12	30.8	2	22.2
30-39	1	2.6	0	0
40-49	5	12.8	1	11.1
50-53	3	7.7	1	11.1
<b><u>Vegetarian Diet<sup>a</sup></u></b>				
Non-vegetarian	24	61.5	6	66.7
Poultry/fish only	7	17.9	2	22.2
Fish only	1	2.6	1	11.1
Lacto-ovo	2	5.1	0	0
Other	1	2.6	0	0
No answer	4	10.3	0	0

<sup>a</sup>Vegetarian Diet classifications were based on self-report at the time of assessment.

Table 4.

Means and Standard Deviations for Frequency of Consumption

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Dairy</u>						
<b>Low</b>						
Plain yogurt	2.14	1.13	2.38	1.35	1.78	1.08
Skim milk	3.25	1.44	2.35	1.52	1.98	1.31
Cottage Cheese (low fat)	2.37	1.20	1.82	1.11	1.60	0.91
Omelet made with egg whites or low-fat egg substitute	2.58	1.18	2.00	1.18	1.78	1.04
Soy Milk or rice dream	2.17	1.46	1.74	1.26	1.73	1.23
<b>Medium</b>						
Low-fat cheese (cheddar, Swiss, Monterey jack)	2.59	0.93	2.74	1.24	2.07	1.01
2% Milk	2.14	1.18	2.71	1.40	2.87	1.38
Fruit yogurt	2.89	1.30	3.06	1.43	2.56	1.34
Hard-Boiled egg (whole)	2.11	1.09	2.12	1.07	2.09	1.00
Cottage cheese (regular)	1.77	0.93	1.62	0.95	1.53	0.81
<b>High</b>						
Regular cheese (cheddar, Swiss, Monterey jack)	2.50	1.08	3.15	1.08	3.33	0.85
Soft or semi-soft cheese (brie, camembert)	1.50	0.74	1.59	0.89	1.58	0.72
Whole milk	1.44	0.84	1.82	1.29	1.82	1.09
Cream cheese	1.83	0.94	2.29	1.00	2.31	1.04
Cheese omelet (whole eggs, regular cheese)	1.80	0.86	2.15	1.28	2.22	1.18
<u>Breads and Grains</u>						
<b>Low</b>						
Oatmeal (plain)	2.72	1.37	1.82	0.94	1.98	0.94
Whole wheat bread	3.49	1.10	3.59	1.31	3.16	1.41
Bagel (plain)	2.77	1.12	2.79	1.41	2.31	1.14
English muffin	2.43	0.90	2.18	0.90	2.09	0.97
Brown rice	2.68	1.09	2.21	1.41	2.02	1.29

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
	<b>Medium</b>					
Cereal	3.31	1.24	3.38	1.30	3.29	1.24
Scone	1.83	0.77	1.82	1.11	1.62	0.78
White bread	2.29	1.21	3.26	1.44	3.22	1.35
White rice	3.22	1.22	4.50	0.96	4.56	0.89
Muffin (bran)	2.14	1.02	2.15	1.02	1.80	0.89
<b>High</b>						
Cinnamon roll	1.66	0.79	2.35	0.65	2.00	0.77
Waffle or pancakes with syrup	2.15	0.93	2.65	1.15	2.71	1.01
Fried rice	1.86	0.93	2.82	1.00	2.93	0.84
Muffin (blueberry or cranberry)	2.31	1.12	2.44	0.75	2.42	1.03
Doughnut	1.74	0.97	2.74	1.02	2.69	1.10
<u>Snack Foods</u>						
<b>Low</b>						
Rice cakes	1.83	1.00	2.35	1.10	2.11	1.09
Crackers (e.g., saltines, soda crackers)	2.26	0.84	2.94	0.95	2.89	1.11
Pretzels	2.36	1.18	2.50	0.86	2.47	0.81
Popcorn (plain, air-popped)	2.48	1.05	2.12	0.81	2.24	0.86
Dried vegetable chips	1.44	0.67	1.47	0.86	1.38	0.83
<b>Medium</b>						
Potato chips (low-fat)	2.33	0.96	2.65	0.95	2.69	0.95
Sun chips or wheat chips	2.14	0.80	2.32	1.09	2.27	0.96
Crackers (e.g., Ritz, Triscuits)	2.26	0.84	2.76	1.21	2.80	1.01
Power bar or cereal bar	2.78	1.48	2.09	1.19	2.00	1.30
Granola bar	2.54	1.30	1.88	0.91	2.33	1.13
<b>High</b>						
Potato chips (regular)	1.89	0.95	2.88	1.12	3.11	1.03
Popcorn (regular, buttered)	1.83	0.81	2.18	0.94	2.62	1.03
Caramel-coated popcorn (regular)	1.75	0.91	1.79	0.77	1.62	0.68
Nuts (peanuts, macadamias, cashews, pecans)	2.68	1.21	2.38	1.13	2.67	1.13
Trail Mix (nuts, sunflower seeds, dried fruit)	2.40	1.25	2.06	0.98	2.04	0.90

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Meats</u>						
<b>Low</b>						
Turkey (white meat)	3.06	1.24	3.24	1.16	2.89	1.11
Baked chicken breast	3.17	1.18	3.06	1.04	3.09	1.14
Canned tuna (water-packed)	3.03	1.34	2.97	1.34	2.58	1.36
Broiled fish	2.97	1.18	2.68	1.25	2.42	1.27
Cocktail shrimp	2.20	1.09	2.06	1.01	1.93	1.14
<b>Medium</b>						
Fried fish	1.72	0.91	2.32	1.12	2.69	1.16
Lean ground beef	2.37	1.31	2.68	1.30	2.76	1.17
Turkey frankfurter	1.43	0.69	1.41	0.61	1.64	0.98
Shoyu chicken	2.14	0.80	3.12	1.20	2.98	1.18
Lean roast beef	1.83	0.88	1.91	0.93	1.89	0.98
<b>High</b>						
Fried chicken	1.69	0.82	2.85	1.21	3.02	1.10
Steak	1.89	0.95	2.44	1.05	2.71	1.16
Kalua Pork	1.77	0.87	2.59	1.21	2.33	1.11
Ham	2.23	1.10	2.38	0.92	2.44	0.97
Spam	1.49	0.77	2.41	0.99	2.84	1.26
Corned Beef	1.43	0.60	1.85	0.82	2.07	1.21
Bacon	1.72	0.88	2.09	1.03	2.36	0.98
Portuguese sausage	1.54	0.73	2.29	1.14	2.38	1.11
Barbecued ribs	1.68	1.04	2.06	0.98	2.18	1.21
Fried calamari	1.44	0.65	1.38	0.55	1.51	0.87
<u>Entrees with Meat</u>						
<b>Low</b>						
Turkey sandwich	2.86	1.22	2.91	1.24	2.91	1.24
Grilled chicken sandwich	2.25	1.11	2.53	1.16	2.31	1.04
Grilled mahi burger	1.89	1.06	1.68	0.84	1.80	1.12
Chicken or shrimp stir fry	2.40	1.05	2.91	1.22	2.89	1.09
Sushi	2.94	1.43	3.32	1.07	3.22	1.22
<b>Medium</b>						
Tuna sandwich	2.28	1.21	2.74	1.08	2.82	1.13
Manapua (steamed, with pork filling)	1.91	1.03	2.35	0.98	2.38	1.13
Hot dog and bun	1.71	0.94	2.26	0.90	2.44	1.01

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Spaghetti with meat sauce	2.22	1.10	2.74	0.96	2.89	1.05
Taco with shredded beef	1.53	0.77	2.50	1.11	3.22	1.13
<b>High</b>						
Pastrami or corned beef sandwich	1.40	0.60	1.71	0.97	1.89	0.98
Ham and cheese sandwich	1.80	0.98	2.03	0.87	2.47	1.20
Hamburger	1.67	0.96	2.74	1.24	3.16	1.26
Pork or beef chow mein with noodles	1.80	0.95	2.56	0.99	2.53	1.06
Plate lunch with teriyaki beef	1.54	0.69	2.44	1.13	2.27	1.10
<u>Entrees without Meat</u>						
<b>Low</b>						
Garden Burger	2.61	1.18	2.06	1.10	1.80	1.01
Pasta with vegetables and olive oil	2.09	0.97	2.62	1.26	2.49	1.25
Tofu with vegetables	2.65	1.22	3.00	1.44	2.64	1.32
Stuffed peppers with rice and tomatoes	1.60	0.76	1.47	0.66	1.40	0.81
Meatless chili and rice	2.25	1.08	2.15	1.08	1.84	0.93
<b>Medium</b>						
Macaroni and cheese	1.77	0.90	1.79	0.84	2.18	0.98
Bean burrito	1.77	0.87	2.35	1.18	1.76	0.96
Baked potato stuffed with cheese	1.66	0.92	1.97	1.06	2.49	1.16
Vegetable quiche	1.54	0.65	1.56	0.93	1.69	0.92
Cheese/veggie wrap or pita	1.94	1.01	1.94	1.04	1.84	1.09
<b>High</b>						
Cheese and veggie pizza	2.29	1.03	2.82	0.94	2.47	1.36
Peanut butter sandwich	2.35	1.26	2.56	1.31	2.62	1.32
Nachos with cheese	1.72	0.81	2.24	0.78	2.42	0.99
Cheese lasagna	1.75	0.73	2.12	0.91	2.31	1.04
Fettuccine alfredo	1.54	0.81	2.18	0.90	2.09	1.06
<u>Salads and Soup</u>						
<b>Low</b>						
Green salad with vinegar or lemon juice	3.22	1.27	2.21	1.37	1.98	1.36
Tomato or cucumber salad	2.58	1.30	2.50	1.11	2.16	1.32
Tomato soup	1.75	0.84	1.68	1.07	1.60	0.99
Chicken broth	2.00	0.83	2.38	1.04	2.20	1.04

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
	Miso soup	2.14	1.20	2.62	1.26	2.87
<b>Medium</b>						
Grilled chicken Caesar salad	2.20	1.28	2.65	1.25	2.62	1.29
Green salad with regular salad dressing	2.78	1.44	3.50	1.16	3.58	1.20
Bean salad	2.20	1.09	1.62	1.10	1.42	0.72
Chicken noodle soup	2.17	1.00	2.50	0.90	2.51	0.97
Saimin	2.03	1.00	3.03	1.19	3.47	1.12
<b>High</b>						
Macaroni salad	1.69	0.86	2.41	0.99	2.53	1.16
Potato salad	1.46	0.65	2.15	0.86	2.31	1.08
Taco salad	1.77	0.90	2.21	0.91	2.09	1.10
Portuguese bean soup	1.57	0.80	1.85	1.05	2.07	1.12
New England clam chowder	1.69	0.71	2.53	1.16	2.44	1.27
<u>Vegetables</u>						
<b>Low</b>						
Snow peas (Chinese pea pods)	2.39	1.18	2.21	1.23	2.00	1.02
Carrots	3.51	1.05	3.35	1.20	3.22	1.17
Green beans	3.42	1.10	3.09	1.24	2.49	1.10
Asparagus	2.68	1.21	2.38	1.33	2.09	1.14
Cauliflower	2.65	1.37	2.12	1.30	2.07	1.21
<b>Medium</b>						
Lima beans	1.85	0.96	1.29	0.58	1.76	0.96
Peas	3.17	1.13	2.82	1.24	2.36	1.11
Creamed spinach	1.43	0.69	1.44	0.89	1.27	0.58
Corn	3.17	1.03	3.29	1.09	3.18	1.01
Baked potato	2.50	1.08	2.56	1.24	2.82	0.98
<b>High</b>						
Candied yams	1.47	0.88	1.41	0.82	1.51	0.73
French fries	1.89	1.06	3.41	1.08	3.64	1.00
Onion rings	1.69	0.67	2.12	0.95	2.42	1.06
Mixed vegetables with butter sauce	2.08	1.00	2.24	1.13	2.13	1.10
Broccoli with cheese sauce	1.74	0.91	1.50	0.90	1.80	1.18

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Fruits</u>						
<b>Low</b>						
Apple	3.64	1.22	3.35	1.12	3.40	1.07
Orange	3.09	1.20	3.26	1.16	3.27	1.05
Mango or papaya	2.94	1.22	3.09	1.19	3.09	1.12
Cantaloupe or honeydew melon	3.03	1.30	3.06	1.35	2.84	1.17
Strawberries	3.06	1.01	2.88	1.01	2.76	1.07
<b>Medium/High</b>						
Banana	3.49	1.02	3.53	1.38	3.31	1.18
Grapes	3.17	1.06	3.53	1.24	3.13	1.14
Raisins or dried fruit	2.65	1.12	2.18	1.00	2.24	1.05
Avocado	2.25	1.11	2.09	1.03	2.36	1.17
Berries with cream, whipped cream, or sour cream	1.64	0.72	1.97	1.11	1.96	0.90
<u>Beverages</u>						
<b>Low</b>						
Tea or iced tea	3.31	1.47	3.65	1.39	3.09	1.52
Coffee or iced coffee	3.25	1.59	3.38	1.56	2.40	1.45
Cappuccino or cocoa (low fat)	2.47	1.36	3.24	1.33	2.33	1.19
Diet Coke or Pepsi	3.63	1.57	2.44	1.56	2.13	1.50
Tomato juice or V-8	1.69	0.98	1.47	0.86	1.42	0.75
<b>Medium</b>						
Fruit juice (apple, orange, guava, passion fruit)	2.23	1.02	3.71	1.24	3.98	0.97
Fruit smoothie	2.49	1.08	2.76	1.13	2.69	1.20
Protein drink	2.45	1.38	1.82	1.31	1.36	0.74
Cappuccino or cocoa (regular milk)	2.47	1.36	2.85	1.54	2.40	1.23
Wine	1.94	1.04	1.82	0.87	1.71	0.99
<b>High</b>						
Regular coke or Pepsi	1.63	1.15	2.50	1.66	3.07	1.63
Milkshake	1.72	1.00	2.53	0.93	2.40	0.86
Mocha (regular milk, whipped cream)	1.54	0.91	2.41	1.35	2.16	1.30
Kahlua and cream	1.28	0.61	1.59	0.89	1.38	0.68
Beer	1.91	1.11	1.88	0.95	1.80	1.20

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
	<u>Desserts</u>					
<b>Low</b>						
Fruit juice or popsicle	1.92	1.00	2.41	1.16	2.16	0.95
Shave ice	2.20	1.04	2.18	1.14	2.49	0.99
Fudgesicle (low fat)	2.00	1.04	2.26	1.19	1.96	0.93
Jello (diet)	1.88	1.12	1.97	1.11	1.69	0.87
Vanilla wafers	1.77	0.76	1.91	0.75	2.31	1.10
<b>Medium</b>						
Butterscotch or vanilla pudding (regular)	1.61	0.84	1.85	1.18	1.56	0.78
Jello (regular)	1.69	0.79	2.21	1.01	2.20	0.97
Oatmeal cookies	2.32	0.98	2.09	0.93	2.31	1.04
Frozen yogurt	2.92	1.25	2.76	0.99	2.73	1.19
Low-fat ice cream	2.63	1.20	2.68	1.01	2.18	1.01
<b>High</b>						
Chocolate chip cookies	2.56	1.16	3.03	1.03	3.22	1.20
Malasadas	1.66	0.86	2.35	1.12	2.33	1.07
Snack cakes (e.g., Twinkies, HoHos, Ding Dongs)	1.63	0.93	1.94	0.92	2.04	1.11
Hot fudge sundae	1.69	0.89	2.26	0.99	2.31	0.95
Cheesecake	1.77	0.80	2.18	0.83	2.38	1.05
Carrot cake with cream cheese frosting	1.67	0.71	1.74	0.93	1.89	0.96
Brownies	2.17	1.03	2.59	0.89	2.71	0.97
Candy bar (e.g., Milky Way, Snickers)	2.17	1.00	2.79	1.12	3.29	1.24
Ice cream bar (e.g., Dove Bar)	1.86	0.96	2.50	1.08	2.47	1.12
Premium ice cream (e.g., Ben & Jerry's)	1.97	1.16	2.74	0.99	2.80	1.18
<u>Condiments and Sauces</u>						
<b>Low</b>						
Ketchup	2.94	1.22	3.24	1.23	3.33	1.17
Mustard	3.53	1.36	2.35	1.37	2.09	1.06
Soy sauce	3.51	1.25	3.47	1.35	3.58	1.20
Tabasco or chili sauce	2.48	1.38	2.44	1.37	1.80	1.20
Margarine (low fat)	2.00	0.86	2.41	1.13	2.20	1.01

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<b>Medium/High</b>						
Butter	2.23	1.15	2.44	1.19	2.91	1.16
Margarine (regular)	2.11	1.09	2.68	1.30	2.78	1.06
Mayonnaise	1.92	1.03	2.74	1.29	3.07	1.23
Sour cream (regular)	1.80	0.89	2.26	1.08	2.18	1.05
Hollandaise or béarnaise sauce	1.53	0.72	1.29	0.58	1.20	0.46

Table 5.

Means and Standard Deviations for Fear

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Dairy</u>						
<b>Low</b>						
Plain yogurt	2.22	1.53	1.59	1.05	1.38	0.86
Skim milk	1.58	0.94	1.50	1.02	1.24	0.86
Cottage Cheese (low fat)	2.31	1.31	2.15	1.46	1.36	0.77
Omelet made with egg whites or low-fat egg substitute	1.94	1.09	1.76	1.23	1.44	0.84
Soy Milk or rice dream	1.88	1.17	1.53	1.08	1.49	0.99
<b>Medium</b>						
Low-fat cheese (cheddar, Swiss, Monterey jack)	2.86	1.25	2.59	1.42	1.49	0.84
2% Milk	2.83	1.42	1.94	1.39	1.27	0.78
Fruit yogurt	2.06	1.12	1.59	1.02	1.18	0.49
Hard-Boiled egg (whole)	2.81	1.47	2.62	1.50	1.49	0.92
Cottage cheese (regular)	3.33	1.39	2.50	1.56	1.40	0.84

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<b>High</b>						
Regular cheese (cheddar, Swiss, Monterey jack)	3.33	1.17	2.41	1.48	1.40	0.69
Soft or semi-soft cheese (brie, camembert)	3.56	1.52	2.68	1.72	1.47	0.89
Whole milk	3.83	1.40	3.06	1.72	2.02	1.41
Cream cheese	3.76	1.25	3.53	1.38	1.60	0.99
Cheese omelet (whole eggs, regular cheese)	3.64	1.42	3.24	1.56	1.67	1.13
<u>Breads and Grains</u>						
<b>Low</b>						
Oatmeal (plain)	1.78	1.10	1.32	0.91	1.18	0.49
Whole wheat bread	2.08	1.13	1.68	1.01	1.22	0.56
Bagel (plain)	3.19	1.39	2.18	1.38	1.16	0.52
English muffin	2.61	1.18	2.06	1.07	1.09	0.29
Brown rice	2.22	1.12	1.41	1.05	1.22	0.67
<b>Medium</b>						
Cereal	2.50	1.18	1.50	1.11	1.18	0.58
Scone	3.67	1.37	2.47	1.48	1.33	0.90
White bread	3.03	1.38	2.12	1.43	1.38	0.78
White rice	3.00	1.24	2.06	1.41	1.24	0.65
Muffin (bran)	3.14	1.29	2.21	1.43	1.42	0.89
<b>High</b>						
Cinnamon roll	4.47	1.08	3.65	1.45	1.87	1.24
Waffle or pancakes with syrup	3.89	1.26	3.21	1.53	1.64	1.07
Fried rice	3.72	1.28	2.15	1.28	1.31	0.60
Muffin (blueberry or cranberry)	3.75	1.25	2.82	1.45	1.51	0.94
Doughnut	4.50	1.03	3.38	1.60	1.89	1.34
<u>Snack Foods</u>						
<b>Low</b>						
Rice cakes	1.97	1.21	1.76	1.35	1.24	0.57
Crackers (e.g., saltines, soda crackers)	3.39	1.25	1.94	1.13	1.16	0.37
Pretzels	2.54	1.25	1.91	1.14	1.24	0.48
Popcorn (plain, air-popped)	2.47	1.38	2.03	1.38	1.33	0.74
Dried vegetable chips	2.48	1.32	1.74	1.26	1.13	0.46

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<b>Medium</b>						
Potato chips (low-fat)	3.17	1.32	2.68	1.41	1.62	1.03
Sun chips or wheat chips	3.69	1.37	2.41	1.40	1.36	0.74
Crackers (e.g., Ritz, Triscuits)	3.39	1.25	2.24	1.35	1.47	0.84
Power bar or cereal bar	2.47	1.06	1.65	1.07	1.16	0.45
Granola bar	2.94	1.26	2.21	1.39	1.22	0.47
<b>High</b>						
Potato chips (regular)	4.44	1.16	3.91	1.48	2.22	1.51
Popcorn (regular, buttered)	3.86	1.29	3.24	1.56	1.98	1.25
Caramel-coated popcorn (regular)	3.33	1.43	2.82	1.53	1.49	0.97
Nuts (peanuts, macadamias, cashews, pecans)	3.81	1.43	3.09	1.60	1.69	1.18
Trail Mix (nuts, sunflower seeds, dried fruit)	3.42	1.48	2.18	1.31	1.20	0.50
<u>Meats</u>						
<b>Low</b>						
Turkey (white meat)	2.17	1.18	1.68	0.98	1.18	0.39
Baked chicken breast	2.36	1.29	1.71	1.19	1.29	0.63
Canned tuna (water-packed)	1.89	1.06	1.97	1.22	1.49	0.84
Broiled fish	2.25	1.05	1.62	1.04	1.47	1.04
Cocktail shrimp	2.31	1.28	2.03	1.17	1.44	0.92
<b>Medium</b>						
Fried fish	3.67	1.31	2.50	1.46	1.84	1.30
Lean ground beef	3.02	1.42	2.71	1.40	1.64	1.11
Turkey frankfurter	3.16	1.48	2.38	1.41	1.60	1.03
Shoyu chicken	2.97	1.40	2.74	1.44	1.76	1.19
Lean roast beef	2.82	1.38	2.71	1.31	1.60	1.12
<b>High</b>						
Fried chicken	4.22	1.15	3.71	1.59	2.22	1.43
Steak	3.53	1.34	3.24	1.44	1.84	1.15
Kalua Pork	3.53	1.46	3.06	1.70	2.04	1.30
Ham	3.33	1.29	2.91	1.42	1.80	1.08
Spam	4.00	1.33	3.47	1.58	2.27	1.51
Corned Beef	3.55	1.38	3.35	1.55	1.78	1.13
Bacon	3.72	1.45	3.38	1.56	2.16	1.35

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Portuguese sausage	3.72	1.45	3.68	1.68	2.24	1.58
Barbecued ribs	3.62	1.48	3.32	1.51	2.11	1.42
Fried calamari	3.64	1.55	2.53	1.73	1.40	0.99
<u>Entrees with Meat</u>						
<b>Low</b>						
Turkey sandwich	2.33	1.10	1.65	0.95	1.20	0.50
Grilled chicken sandwich	2.97	1.36	1.85	1.13	1.36	0.65
Grilled mahi burger	2.58	1.20	1.44	0.86	1.44	0.99
Chicken or shrimp stir fry	3.06	1.39	2.47	1.33	1.60	1.12
Sushi	2.36	1.20	1.71	1.06	1.36	0.77
<b>Medium</b>						
Tuna sandwich	3.22	1.48	2.18	1.17	1.58	0.92
Manapua (steamed, with pork filling)	3.64	1.40	2.85	1.37	1.89	1.19
Hot dog and bun	3.89	1.39	3.24	1.54	1.98	1.22
Spaghetti with meat sauce	3.33	1.31	2.24	1.33	1.24	0.48
Taco with shredded beef	3.64	1.33	3.00	1.48	1.42	0.72
<b>High</b>						
Pastrami or corned beef sandwich	3.58	1.44	2.74	1.68	1.69	1.08
Ham and cheese sandwich	3.39	1.48	2.91	1.54	1.84	1.11
Hamburger	3.94	1.41	3.41	1.54	2.16	1.48
Pork or beef chow mein with noodles	3.78	1.35	2.91	1.42	1.67	0.93
Plate lunch with teriyaki beef	3.89	1.39	3.24	1.76	1.87	1.08
<u>Entrees without Meat</u>						
<b>Low</b>						
Garden Burger	2.39	1.20	1.41	0.89	1.27	0.72
Pasta with vegetables and olive oil	3.28	1.32	2.62	1.33	1.36	0.83
Tofu with vegetables	2.00	1.20	1.38	0.85	1.20	0.59
Stuffed peppers with rice and tomatoes	2.73	1.27	1.94	1.13	1.31	0.70
Meatless chili and rice	2.89	1.30	2.26	1.24	1.22	0.60
<b>Medium</b>						
Macaroni and cheese	4.08	1.34	3.26	1.60	1.60	1.03
Bean burrito	3.22	1.38	2.91	1.42	1.64	1.17
Baked potato stuffed with cheese	4.06	1.17	3.50	1.80	1.84	1.21
Vegetable quiche	3.69	1.31	2.24	1.48	1.44	0.84

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Cheese/veggie wrap or pita	2.81	1.26	2.44	1.40	1.16	0.52
<b>High</b>						
Cheese and veggie pizza	4.00	1.26	3.00	1.50	1.56	1.10
Peanut butter sandwich	3.64	1.22	2.94	1.58	1.53	0.89
Nachos with cheese	4.33	1.15	3.53	1.54	1.82	1.19
Cheese lasagna	4.03	1.23	3.50	1.54	1.58	0.97
Fettuccine alfredo	4.33	1.20	3.38	1.60	1.73	1.16
<u>Salads and Soup</u>						
<b>Low</b>						
Green salad with vinegar or lemon juice	1.58	1.08	1.26	0.79	1.29	0.82
Tomato or cucumber salad	1.39	0.80	1.26	0.96	1.02	0.15
Tomato soup	1.78	1.05	1.47	0.90	1.13	0.34
Chicken broth	1.94	1.19	1.56	0.89	1.24	0.74
Miso soup	1.56	1.00	1.56	1.19	1.13	0.34
<b>Medium</b>						
Grilled chicken Caesar salad	2.89	1.41	2.41	1.33	1.51	0.87
Green salad with regular salad dressing	2.97	1.48	1.91	1.38	1.18	0.68
Bean salad	2.25	1.23	1.71	1.27	1.24	0.77
Chicken noodle soup	2.34	1.26	2.21	1.32	1.29	0.63
Saimin	2.94	1.26	2.24	1.46	1.40	0.65
<b>High</b>						
Macaroni salad	3.97	1.36	3.56	1.56	1.84	1.13
Potato salad	4.03	1.42	3.32	1.70	1.80	1.16
Taco salad	3.53	1.30	2.62	1.52	1.31	0.82
Portuguese bean soup	3.08	1.38	2.44	1.42	1.49	0.97
New England clam chowder	3.83	1.25	2.88	1.57	1.58	0.94
<u>Vegetables</u>						
<b>Low</b>						
Snow peas (Chinese pea pods)	1.28	0.66	1.24	0.82	1.11	0.38
Carrots	1.57	1.02	1.21	0.77	1.09	0.29
Green beans	1.42	0.87	1.21	0.73	1.31	0.73
Asparagus	1.44	1.00	1.26	0.96	1.51	1.18
Cauliflower	1.56	1.03	1.29	0.80	1.38	0.96

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<b>Medium</b>						
Lima beans	1.48	1.05	1.56	1.19	1.22	0.79
Peas	1.61	1.08	1.29	0.87	1.22	0.74
Creamed spinach	3.11	1.45	2.29	1.34	1.62	1.21
Corn	1.97	1.13	1.41	0.92	1.02	0.15
Baked potato	2.72	1.09	2.38	1.39	1.38	0.68
<b>High</b>						
Candied yams	2.31	1.35	1.88	1.39	1.22	0.67
French fries	4.44	1.08	3.97	1.51	2.36	1.55
Onion rings	4.42	1.02	3.65	1.55	2.33	1.58
Mixed vegetables with butter sauce	3.22	1.48	2.50	1.35	1.44	0.84
Broccoli with cheese sauce	3.56	1.30	2.71	1.53	1.67	1.02
<u>Fruits</u>						
<b>Low</b>						
Apple	1.44	0.77	1.29	0.87	1.07	0.25
Orange	1.61	1.02	1.15	0.70	1.09	0.47
Mango or papaya	1.83	1.08	1.50	1.05	1.13	0.50
Cantaloupe or honeydew melon	1.64	0.93	1.29	0.80	1.07	0.33
Strawberries	1.64	1.05	1.32	0.81	1.16	0.47
<b>Medium/High</b>						
Banana	2.20	1.31	1.44	0.86	1.18	0.68
Grapes	1.81	1.12	1.29	0.84	1.07	0.25
Raisins or dried fruit	2.29	1.08	1.68	1.17	1.16	0.47
Avocado	2.47	1.58	2.29	1.49	1.22	0.64
Berries with cream, whipped cream, or sour cream	3.31	1.47	2.38	1.63	1.47	0.89
<u>Beverages</u>						
<b>Low</b>						
Tea or iced tea	1.58	1.08	1.35	0.92	1.29	0.73
Coffee or iced coffee	1.92	1.20	2.29	1.61	1.53	1.01
Cappuccino or cocoa (low fat)	2.28	1.06	2.00	1.26	1.60	0.89
Diet Coke or Pepsi	1.62	1.02	2.32	1.45	1.62	1.19
Tomato juice or V-8	1.61	1.15	1.53	1.11	1.29	0.79

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<b>Medium</b>						
Fruit juice (apple, orange, guava, passion fruit)	2.75	1.30	1.74	1.29	1.13	0.40
Fruit smoothie	2.78	1.33	2.24	1.37	1.13	0.34
Protein drink	2.31	1.28	1.71	1.31	1.24	0.71
Cappuccino or cocoa (regular milk)	3.44	1.25	2.53	1.62	1.58	1.01
Wine	2.68	1.39	2.62	1.56	1.78	1.38
<b>High</b>						
Regular coke or Pepsi	3.82	1.47	3.12	1.68	2.11	1.42
Milkshake	4.22	1.15	3.50	1.52	1.80	1.04
Mocha (regular milk, whipped cream)	3.67	1.43	2.65	1.69	1.73	1.16
Kahlua and cream	3.34	1.43	2.56	1.65	1.69	1.35
Beer	3.04	1.43	2.71	1.53	2.18	1.53
<u>Desserts</u>						
<b>Low</b>						
Fruit juice or popsicle	1.89	1.01	1.50	1.11	1.13	0.46
Shave ice	2.69	1.31	1.79	1.17	1.22	0.64
Fudgesicle (low fat)	2.25	1.13	2.38	1.41	1.36	0.61
Jello (diet)	1.47	0.88	1.62	1.07	1.16	0.64
Vanilla wafers	3.50	1.38	2.53	1.54	1.53	1.06
<b>Medium</b>						
Butterscotch or vanilla pudding (regular)	3.33	1.49	2.38	1.56	1.42	0.87
Jello (regular)	2.28	1.16	1.82	1.27	1.27	0.75
Oatmeal cookies	4.04	1.15	2.38	1.54	1.40	0.91
Frozen yogurt	2.97	1.28	2.06	1.13	1.36	0.77
Low-fat ice cream	3.22	1.38	2.53	1.31	1.78	1.15
<b>High</b>						
Chocolate chip cookies	4.19	1.12	3.29	1.61	1.84	1.21
Malasadas	4.16	1.14	3.21	1.55	1.91	1.24
Snack cakes (e.g., Twinkies, HoHos, Ding Dongs)	4.53	1.08	3.74	1.60	2.18	1.56
Hot fudge sundaes	4.25	1.20	3.68	1.55	2.11	1.34
Cheesecake	4.53	0.97	3.94	1.37	2.16	1.40
Carrot cake with cream cheese frosting	4.17	1.32	2.91	1.76	1.49	0.89

Food Items	Eating Disorder n=36		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Brownies	4.33	1.07	3.68	1.49	1.98	1.25
Candy bar (e.g., Milky Way, Snickers)	4.56	0.97	3.79	1.53	2.53	1.63
Ice cream bar (e.g., Dove Bar)	4.44	0.97	3.97	1.42	2.18	1.47
Premium ice cream (e.g., Ben & Jerry's)	4.53	0.97	3.74	1.48	2.16	1.38
<b><u>Condiments and Sauces</u></b>						
<b>Low</b>						
Ketchup	1.69	1.14	1.59	1.05	1.22	0.60
Mustard	1.31	0.86	1.82	1.36	1.42	1.06
Soy sauce	1.75	1.30	2.29	1.47	1.51	0.94
Tabasco or chili sauce	1.64	1.33	1.41	1.05	1.69	1.14
Margarine (low fat)	3.14	1.38	2.76	1.39	1.40	0.81
<b>Medium/High</b>						
Butter	4.28	1.28	4.00	1.30	1.96	1.31
Margarine (regular)	3.97	1.44	3.35	1.55	1.73	1.10
Mayonnaise	3.89	1.37	3.79	1.41	2.33	1.40
Sour cream (regular)	3.64	1.40	3.18	1.51	1.58	0.84
Hollandaise or béarnaise sauce	3.79	1.49	2.50	1.62	1.58	1.08

Table 6.

Means and Standard Deviations for Appeal

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Dairy</u>						
<b>Low</b>						
Plain yogurt	2.17	1.01	2.68	1.43	2.18	1.28
Skim milk	2.83	1.58	2.41	1.33	1.93	1.30
Cottage Cheese (low fat)	2.83	1.25	2.00	1.10	2.09	1.43
Omelet made with egg whites or low-fat egg substitute	3.11	1.18	2.41	1.50	2.31	1.33
Soy Milk or rice dream	2.09	1.27	1.91	1.31	2.09	1.50
<b>Medium</b>						
Low-fat cheese (cheddar, Swiss, Monterey jack)	3.37	1.40	2.79	1.47	2.44	1.41
2% Milk	2.37	1.46	2.88	1.49	3.02	1.47
Fruit yogurt	3.34	1.35	3.62	1.39	2.96	1.59
Hard-Boiled egg (whole)	2.80	1.23	2.62	1.46	2.87	1.22
Cottage cheese (regular)	3.11	1.18	2.29	1.34	2.09	1.14
<b>High</b>						
Regular cheese (cheddar, Swiss, Monterey jack)	3.63	1.17	3.62	1.52	3.56	1.16
Soft or semi-soft cheese (brie, camembert)	3.00	1.51	2.74	1.75	2.16	1.26
Whole milk	1.80	1.16	2.26	1.31	2.16	1.40
Cream cheese	3.20	1.32	2.97	1.45	2.87	1.38
Cheese omelet (whole eggs, regular cheese)	3.66	1.24	3.29	1.64	3.18	1.59
<u>Breads and Grains</u>						
<b>Low</b>						
Oatmeal (plain)	2.37	1.14	2.03	1.22	1.98	1.20
Whole wheat bread	3.60	1.22	3.15	1.21	3.02	1.23
Bagel (plain)	3.63	1.11	2.85	1.42	2.80	1.22

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
	English muffin	3.49	1.20	2.82	1.29	2.87
Brown rice	3.09	1.27	2.44	1.37	2.20	1.27
<b>Medium</b>						
Cereal	4.06	1.00	3.44	1.24	3.49	1.14
Scone	3.77	1.21	2.59	1.62	1.98	1.10
White bread	2.89	1.47	3.53	1.35	3.40	1.21
White rice	3.66	1.21	4.32	1.15	3.93	1.10
Muffin (bran)	3.57	1.24	2.29	1.29	2.16	1.21
<b>High</b>						
Cinnamon roll	4.17	1.12	3.53	1.26	3.38	1.42
Waffle or pancakes with syrup	4.21	1.08	3.62	1.26	3.42	1.22
Fried rice	3.57	1.20	3.50	1.35	3.60	1.16
Muffin (blueberry or cranberry)	4.03	1.15	3.44	1.33	3.09	1.24
Doughnut	4.03	1.07	3.71	1.34	3.49	1.31
<u>Snack Foods</u>						
<b>Low</b>						
Rice cakes	2.71	1.43	2.79	1.57	2.44	1.37
Crackers (e.g., saltines, soda crackers)	3.49	1.22	2.97	1.11	3.24	1.26
Pretzels	3.06	1.26	2.74	1.24	2.98	1.22
Popcorn (plain, air-popped)	2.91	1.36	2.56	1.24	2.64	1.28
Dried vegetable chips	2.26	1.07	1.88	0.98	1.80	1.10
<b>Medium</b>						
Potato chips (low-fat)	3.17	1.25	3.12	1.30	2.76	1.23
Sun chips or wheat chips	3.49	1.20	2.94	1.39	2.98	1.08
Crackers (e.g., Ritz, Triscuits)	3.49	1.22	3.24	1.42	3.33	1.21
Power bar or cereal bar	3.23	1.26	1.85	1.23	2.16	1.13
Granola bar	3.43	1.20	2.44	1.42	2.76	1.38
<b>High</b>						
Potato chips (regular)	3.46	1.42	3.74	1.42	3.64	1.21
Popcorn (regular, buttered)	3.49	1.34	2.82	1.27	3.47	1.32
Caramel-coated popcorn (regular)	3.40	1.35	2.29	1.36	2.64	1.32
Nuts (peanuts, macadamias, cashews, pecans)	3.54	1.50	2.71	1.38	3.02	1.32
	3.20	1.47	2.53	1.38	2.69	1.12

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Trail Mix (nuts, sunflower seeds, dried fruit)						
<u>Meats</u>						
<b>Low</b>						
Turkey (white meat)	3.46	1.54	3.53	1.19	3.31	1.50
Baked chicken breast	3.09	1.29	3.47	1.08	3.42	1.20
Canned tuna (water-packed)	2.97	1.40	3.06	1.32	2.91	1.40
Broiled fish	3.46	1.38	2.85	1.33	2.78	1.52
Cocktail shrimp	2.91	1.52	3.26	1.50	2.73	1.57
<b>Medium</b>						
Fried fish	2.57	1.46	2.79	1.37	3.04	1.45
Lean ground beef	2.94	1.53	3.00	1.35	2.93	1.34
Turkey frankfurter	2.34	1.30	2.29	1.24	2.13	1.06
Shoyu chicken	3.43	1.40	3.91	1.06	3.64	1.33
Lean roast beef	3.00	1.50	2.56	1.50	2.29	1.20
<b>High</b>						
Fried chicken	3.09	1.42	3.82	1.29	3.49	1.06
Steak	2.69	1.51	3.50	1.33	3.11	1.48
Kalua Pork	3.11	1.51	3.56	1.44	3.20	1.42
Ham	2.86	1.44	2.71	1.12	2.78	1.18
Spam	2.06	1.37	2.59	1.16	3.02	1.44
Corned Beef	2.31	1.43	2.26	1.26	2.53	1.38
Bacon	2.77	1.50	3.38	1.50	3.20	1.36
Portuguese sausage	2.43	1.38	3.35	1.47	2.82	1.42
Barbecued ribs	3.00	1.53	3.41	1.44	2.78	1.44
Fried calamari	2.26	1.34	2.09	1.33	2.04	1.46
<u>Entrees with Meat</u>						
<b>Low</b>						
Turkey sandwich	3.63	1.35	3.35	1.25	3.42	1.36
Grilled chicken sandwich	3.26	1.07	3.76	1.28	3.38	1.39
Grilled mahi burger	3.14	1.12	3.03	1.60	2.62	1.50
Chicken or shrimp stir fry	3.49	1.27	4.12	1.15	3.49	1.24
Sushi	3.74	1.56	4.09	1.31	3.82	1.39
<b>Medium</b>						
Tuna sandwich	2.86	1.46	3.12	1.25	3.18	1.39

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Manapua (steamed, with pork filling)	3.23	1.65	3.06	1.37	2.84	1.46
Hot dog and bun	2.86	1.44	3.09	1.22	3.11	1.23
Spaghetti with meat sauce	3.20	1.35	3.50	1.33	3.67	1.35
Taco with shredded beef	2.83	1.36	3.21	1.61	2.89	1.51
<b>High</b>						
Pastrami or corned beef sandwich	2.23	1.21	2.18	1.31	2.29	1.42
Ham and cheese sandwich	3.03	1.42	2.94	1.20	3.09	1.28
Hamburger	2.97	1.46	3.65	1.50	3.33	1.43
Pork or beef chow mein with noodles	2.89	1.51	3.44	1.24	2.89	1.32
Plate lunch with teriyaki beef	2.97	1.44	3.53	1.38	3.04	1.35
<u>Entrees without Meat</u>						
<b>Low</b>						
Garden Burger	3.29	1.15	2.41	1.21	2.33	1.46
Pasta with vegetables and olive oil	3.54	1.29	3.12	1.45	3.16	1.40
Tofu with vegetables	3.43	1.52	2.94	1.43	3.04	1.45
Stuffed peppers with rice and tomatoes	2.49	1.34	2.21	1.30	2.09	1.43
Meatless chili and rice	3.43	0.95	2.76	1.26	2.47	1.34
<b>Medium</b>						
Macaroni and cheese	3.20	1.43	2.62	1.52	2.93	1.32
Bean burrito	3.34	1.11	2.71	1.40	2.11	1.32
Baked potato stuffed with cheese	3.60	1.31	3.50	1.71	3.36	1.49
Vegetable quiche	3.44	1.29	2.35	1.59	2.20	1.42
Cheese/veggie wrap or pita	3.31	1.16	2.74	1.48	2.67	1.49
<b>High</b>						
Cheese and veggie pizza	4.06	1.33	3.53	1.40	3.22	1.52
Peanut butter sandwich	3.94	1.24	3.21	1.34	3.09	1.29
Nachos with cheese	3.71	1.25	3.41	1.37	3.44	1.12
Cheese lasagna	4.03	1.12	3.74	1.44	3.51	1.34
Fettuccine alfredo	3.29	1.53	3.71	1.51	3.04	1.66
<u>Salads and Soup</u>						
<b>Low</b>						
Green salad with vinegar or lemon juice	2.86	1.29	1.91	1.08	2.24	1.23
Tomato or cucumber salad	2.74	1.38	2.38	1.41	2.38	1.51

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Tomato soup	2.29	1.34	1.76	1.05	2.13	1.12
Chicken broth	2.37	1.21	2.21	1.01	2.47	1.08
Miso soup	2.97	1.44	3.06	1.35	3.36	1.54
<b>Medium</b>						
Grilled chicken Caesar salad	3.31	1.51	4.18	1.38	3.56	1.44
Green salad with regular salad dressing	3.37	1.35	3.18	1.45	3.60	1.42
Bean salad	2.69	1.39	1.88	1.15	1.71	1.06
Chicken noodle soup	2.66	1.24	3.00	1.15	3.44	1.08
Saimin	3.20	1.35	3.41	1.37	3.78	1.04
<b>High</b>						
Macaroni salad	2.46	1.34	2.94	1.56	2.78	1.44
Potato salad	2.51	1.40	2.94	1.58	2.76	1.26
Taco salad	3.74	0.98	3.44	1.50	2.91	1.41
Portuguese bean soup	2.74	1.40	2.56	1.60	2.73	1.64
New England clam chowder	3.09	1.62	3.71	1.43	3.47	1.52
<u>Vegetables</u>						
<b>Low</b>						
Snow peas (Chinese pea pods)	2.74	1.36	2.44	1.46	2.20	1.27
Carrots	3.23	1.37	3.15	1.31	3.38	1.28
Green beans	3.23	1.37	2.62	1.35	2.47	1.22
Asparagus	2.69	1.49	2.82	1.49	2.67	1.41
Cauliflower	2.74	1.44	2.18	1.42	2.27	1.47
<b>Medium</b>						
Lima beans	2.31	1.25	1.74	1.08	1.80	1.08
Peas	3.37	1.37	2.50	1.46	2.49	1.32
Creamed spinach	2.66	1.45	1.71	1.24	1.84	1.17
Corn	3.69	1.30	3.59	1.18	3.53	1.16
Baked potato	3.43	1.29	3.32	1.43	3.47	1.29
<b>High</b>						
Candied yams	2.43	1.63	2.00	1.46	1.93	1.36
French fries	3.74	1.12	4.29	1.12	4.09	0.97
Onion rings	3.71	1.27	3.94	1.41	3.16	1.43
Mixed vegetables with butter sauce	3.20	1.45	2.97	1.42	2.60	1.39
Broccoli with cheese sauce	3.11	1.37	2.91	1.52	2.58	1.47

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<b><u>Fruits</u></b>						
<b>Low</b>						
Apple	3.66	1.30	3.59	1.33	3.73	1.12
Orange	3.46	1.27	3.53	1.26	3.84	1.09
Mango or papaya	3.97	1.07	3.56	1.50	3.76	1.43
Cantaloupe or honeydew melon	3.60	1.29	3.32	1.36	3.44	1.44
Strawberries	4.11	1.23	4.06	1.25	3.89	1.25
<b>Medium/High</b>						
Banana	3.86	1.06	3.38	1.39	3.53	1.25
Grapes	3.80	1.11	3.71	1.27	3.89	1.07
Raisins or dried fruit	2.83	1.44	2.09	1.16	2.62	1.32
Avocado	2.91	1.65	2.76	1.71	2.76	1.51
Berries with cream, whipped cream, or sour cream	3.51	1.31	3.53	1.60	3.09	1.49
<b><u>Beverages</u></b>						
<b>Low</b>						
Tea or iced tea	3.26	1.27	3.59	1.31	3.22	1.57
Coffee or iced coffee	3.37	1.40	3.68	1.53	3.00	1.51
Cappuccino or cocoa (low fat)	3.34	1.06	3.59	1.42	2.73	1.47
Diet Coke or Pepsi	3.20	1.71	2.74	1.52	2.27	1.59
Tomato juice or V-8	2.09	1.38	1.56	0.93	1.64	1.09
<b>Medium</b>						
Fruit juice (apple, orange, guava, passion fruit)	3.09	1.27	4.26	0.86	4.20	0.87
Fruit smoothie	3.94	1.28	3.79	1.07	3.76	1.33
Protein drink	2.66	1.49	1.68	0.98	1.64	0.98
Cappuccino or cocoa (regular milk)	3.34	1.39	3.85	1.42	3.27	1.53
Wine	2.26	1.48	2.41	1.35	2.00	1.38
<b>High</b>						
Regular coke or Pepsi	2.54	1.67	3.53	1.54	3.29	1.56
Milkshake	4.43	0.98	4.06	1.28	3.80	1.10
Mocha (regular milk, whipped cream)	3.14	1.59	3.88	1.43	3.02	1.63
Kahlua and cream	2.23	1.35	2.59	1.62	2.22	1.54
Beer	1.94	1.30	1.97	1.47	1.78	1.36

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
	<b><u>Desserts</u></b>					
<b>Low</b>						
Fruit juice or popsicle	2.89	1.21	3.53	1.24	3.36	1.28
Shave ice	3.57	1.40	3.35	1.43	3.78	1.24
Fudgesicle (low fat)	3.43	1.24	2.74	1.36	2.73	1.32
Jello (diet)	2.26	1.42	2.26	1.29	2.02	1.18
Vanilla wafers	3.23	1.35	3.03	1.42	3.00	1.21
<b>Medium</b>						
Butterscotch or vanilla pudding (regular)	3.43	1.58	2.62	1.46	2.09	1.26
Jello (regular)	2.57	1.24	2.85	1.52	3.11	1.32
Oatmeal cookies	4.23	0.77	3.03	1.34	3.20	1.39
Frozen yogurt	4.17	1.29	3.91	1.22	3.56	1.34
Low-fat ice cream	3.86	1.14	3.24	1.37	2.82	1.39
<b>High</b>						
Chocolate chip cookies	4.17	1.12	4.06	1.23	3.96	1.21
Malasadas	3.46	1.65	3.71	1.43	3.24	1.38
Snack cakes (e.g., Twinkies, HoHos, Ding Dongs)	3.43	1.60	3.12	1.51	3.02	1.57
Hot fudge sundae	4.11	1.30	3.82	1.31	3.87	1.18
Cheesecake	3.94	1.39	3.85	1.44	3.60	1.44
Carrot cake with cream cheese frosting	3.77	1.55	2.94	1.65	2.49	1.55
Brownies	4.17	1.10	3.82	1.27	3.80	1.39
Candy bar (e.g., Milky Way, Snickers)	4.14	1.17	3.76	1.35	3.82	1.25
Ice cream bar (e.g., Dove Bar)	3.91	1.34	4.00	1.07	3.96	1.09
Premium ice cream (e.g., Ben & Jerry's)	4.37	0.94	4.15	1.18	4.02	1.10
<b><u>Condiments and Sauces</u></b>						
<b>Low</b>						
Ketchup	3.26	1.50	3.03	1.27	2.91	1.12
Mustard	3.23	1.46	2.18	1.29	2.18	1.28
Soy sauce	3.63	1.09	3.03	1.38	3.40	1.39
Tabasco or chili sauce	2.49	1.60	2.62	1.46	1.91	1.33
Margarine (low fat)	2.63	1.26	2.41	1.13	2.42	1.14

Food Items	Eating Disorder n=35		Dieters n=34		Non Dieters n=45	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
	<b>Medium/High</b>					
Butter	3.26	1.50	2.82	1.42	2.93	1.39
Margarine (regular)	2.91	1.29	2.68	1.32	2.78	1.04
Mayonnaise	2.40	1.56	2.85	1.50	2.80	1.27
Sour cream (regular)	3.09	1.34	2.94	1.50	2.73	1.37
Hollandaise or béarnaise sauce	2.39	1.55	2.03	1.24	1.51	1.08

Table 7.

Number of Unique Foods Consumed According to FPS and Food Record (n=21).

Number of Unique Foods Reported	FPS "rarely" to "very often"		FPS "occasionally" to "very often"		FR 10 days	
	n	%	n	%	n	%
18-20	0	0	0	0	2	9.5
21-30	0	0	1	4.8	0	0
31-40	0	0	3	14.3	7	33.3
41-50	0	0	5	23.8	5	23.8
51-60	0	0	5	23.8	6	28.6
61-70	5	23.8	2	9.5	1	4.8
71-80	0	0	1	4.8	0	0
81-90	1	4.8	3	14.3	0	0
91-100	4	19.1	0	0	0	0
101-110	2	9.5	0	0	0	0
111-120	2	9.5	1	4.8	0	0
121-130	0	0	0	0	0	0
131-140	1	4.8	0	0	0	0
141-150	3	14.3	0	0	0	0
151-160	1	4.8	0	0	0	0
161-170	2	9.5	0	0	0	0

Table 8.

**Number of Unique Low, Medium, and High Fatteningness Foods Consumed According to FPS and Food Record (n=21).**

Number of Unique Foods Reported	<u>FPS</u> "rarely" to "very often"		<u>FPS</u> "occasionally" to "very often"		<u>FR</u> 10 days	
	n	%	n	%	n	%
<u>Low</u>						
1-10	0	0	0	0	2	9.5
11-20	0	0	2	9.5	17	81.0
21-30	0	0	12	57.1	2	9.5
31-40	12	57.1	7	33.3	0	0
41-50	4	19.1	2	9.5	0	0
51-60	5	23.8	0	0	0	0
<u>Medium</u>						
1-10	0	0	1	4.8	5	23.8
11-20	0	0	14	66.7	15	71.4
21-30	7	33.3	4	19.1	1	4.8
31-40	7	33.3	2	9.5	0	0
41-50	5	23.8	0	0	0	0
51-60	2	9.5	0	0	0	0
<u>High</u>						
1-10	4	19.1	15	71.4	7	33.3

Number of Unique Foods Reported	<u>FPS</u> “rarely” to “very often”		<u>FPS</u> “occasionally” to “very often”		<u>FR</u> 10 days	
	n	%	n	%	n	%
	11-20	5	23.8	5	23.8	14
21-30	3	14.3	0	0	0	0
31-40	0	0	0	0	0	0
41-50	3	14.3	1	4.8	0	0
51-60	6	28.6	0	0	0	0

Table 9.

Means and Standard Deviations for Pre and Post CBT Treatment According to Perceived Level of Fatteningness.

	Pre-Treatment (n=9)		Post-Treatment (n=9)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Frequency of Consumption</u>				
Low	2.52	0.40	2.23	0.43
Medium	2.09	0.24	2.05	0.26
High	1.69	0.50	1.81	0.37
<u>Fear/Guilt</u>				
Low	1.75	0.44	1.21	0.36
Medium	2.63	0.71	1.63	0.87
High	3.64	0.91	2.17	1.30
<u>Appeal</u>				
Low	3.03	0.38	2.91	0.58
Medium	3.26	0.56	3.03	0.65
High	3.27	0.76	3.05	0.74

	Pre-Treatment (n=9)		Post-Treatment (n=9)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<u>Number of Feared Foods</u>				
Low	1.78	2.59	0.22	0.67
Medium	8.22	9.60	2.78	7.61
High	19.33	17.95	6.11	12.59
<u>Avoidance</u>				
Low	-1.48	0.40	-1.52	0.44
Medium	-1.88	0.60	-1.71	0.62
High	-2.25	0.80	-1.90	0.67

Appendix B

Figures

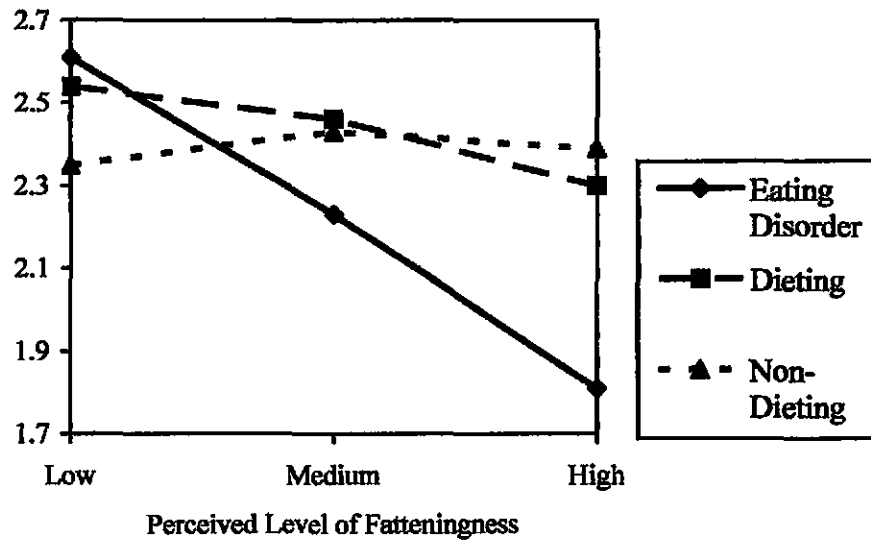


Figure 1. Mean frequency of consumption for eating-disordered, dieters, and non-dieters as a function of perceived level of fatteningness.

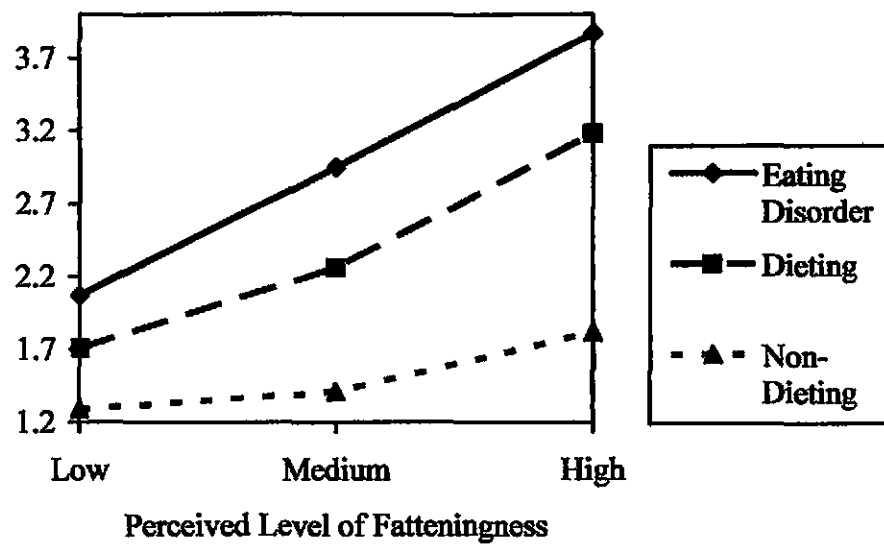
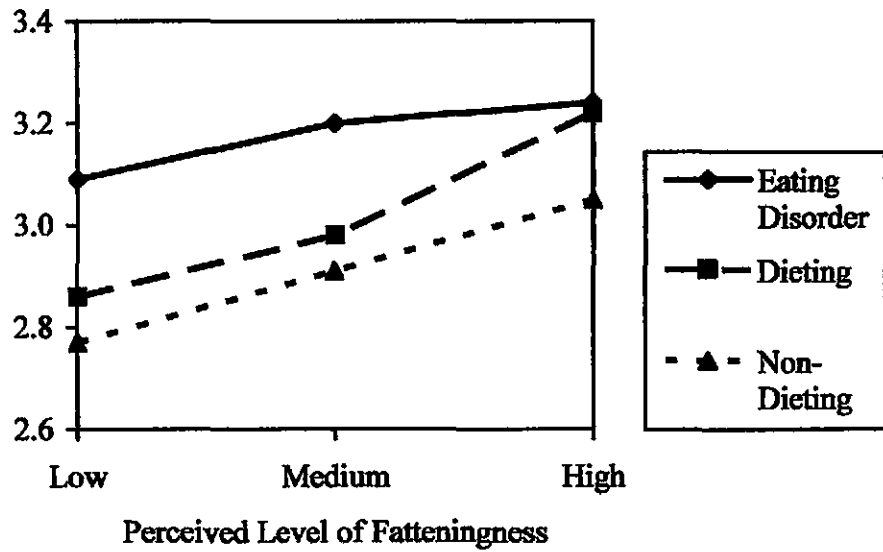
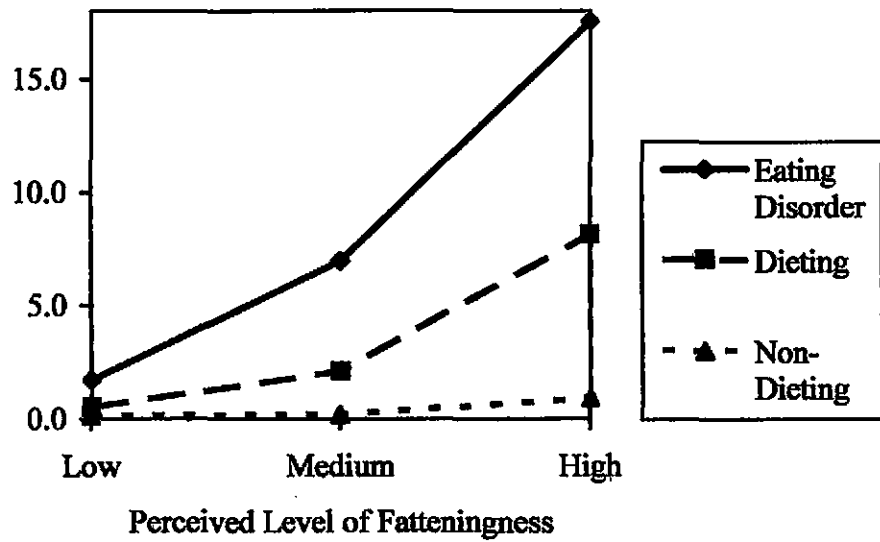


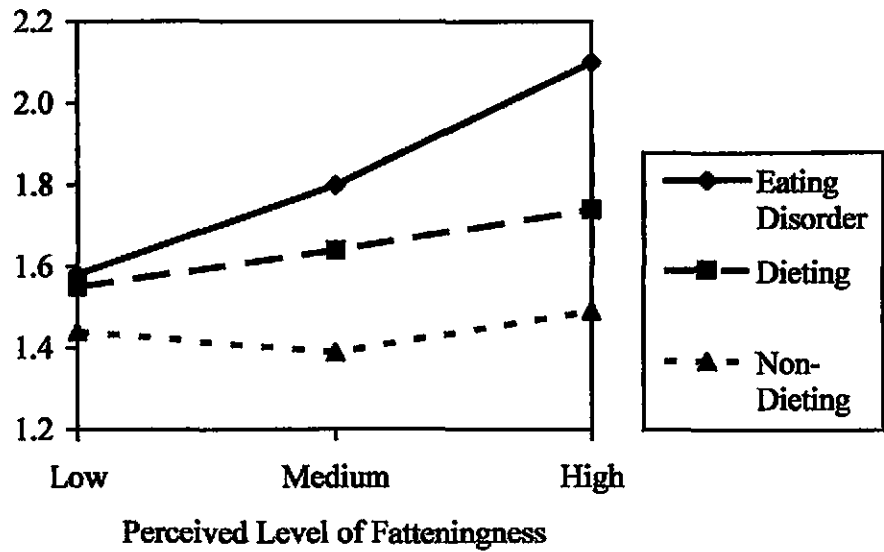
Figure 2. Mean fear and guilt for eating-disordered, dieters, and non-dieters as a function of perceived level of fatteningness.



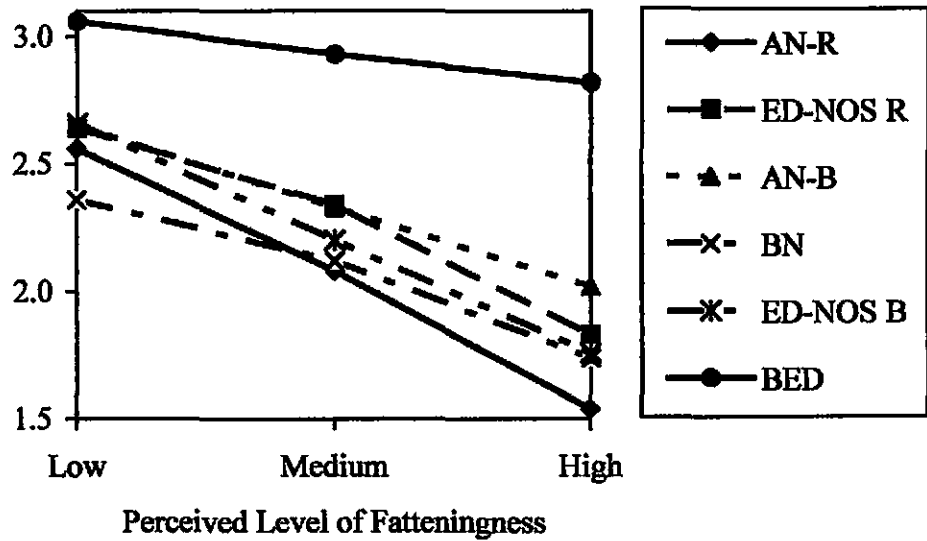
**Figure 3.** Mean ratings of appeal of different food items for eating-disordered, dieters, and non-dieters as a function of perceived level of fatteningness.



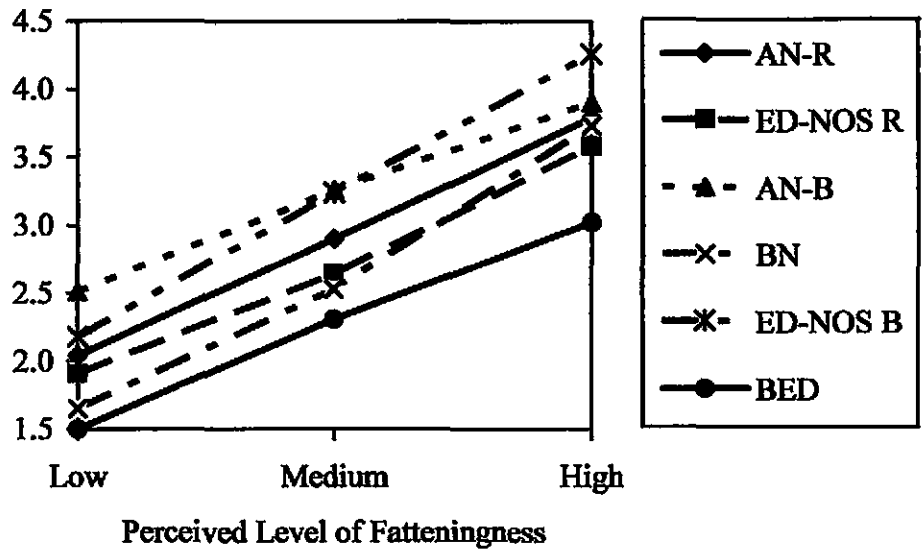
**Figure 4.** Mean number of foods designated as feared for eating-disordered, dieters, and non-dieters as a function of perceived level of fatteningness.



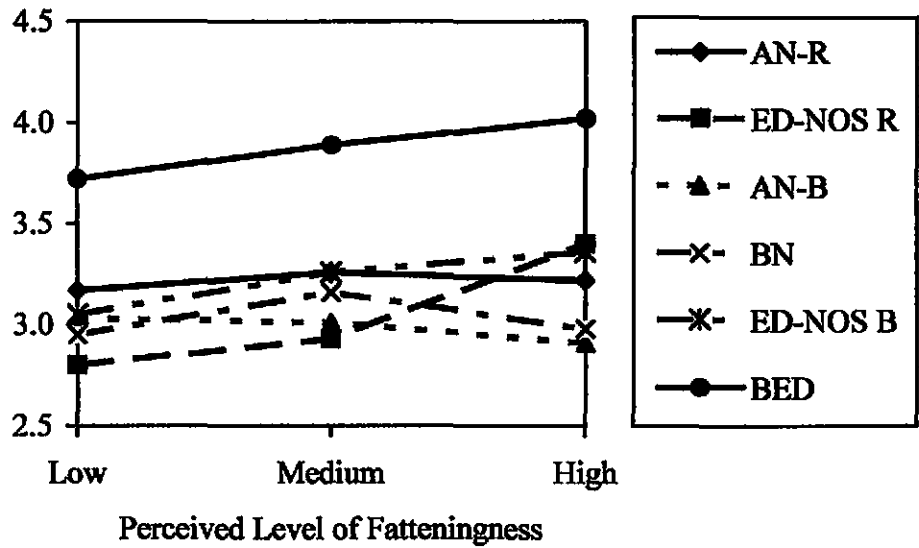
**Figure 5.** Mean negative discrepancy for eating disordered, dieters, and non-dieters as a function of perceived level of fatteningness.



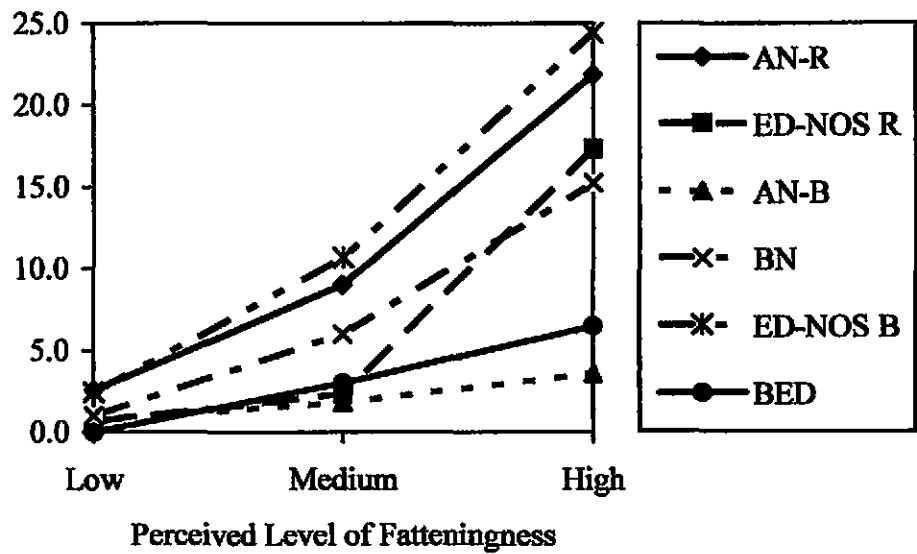
**Figure 6.** Mean frequency of consumption for AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED as a function of perceived level of fatteningness.



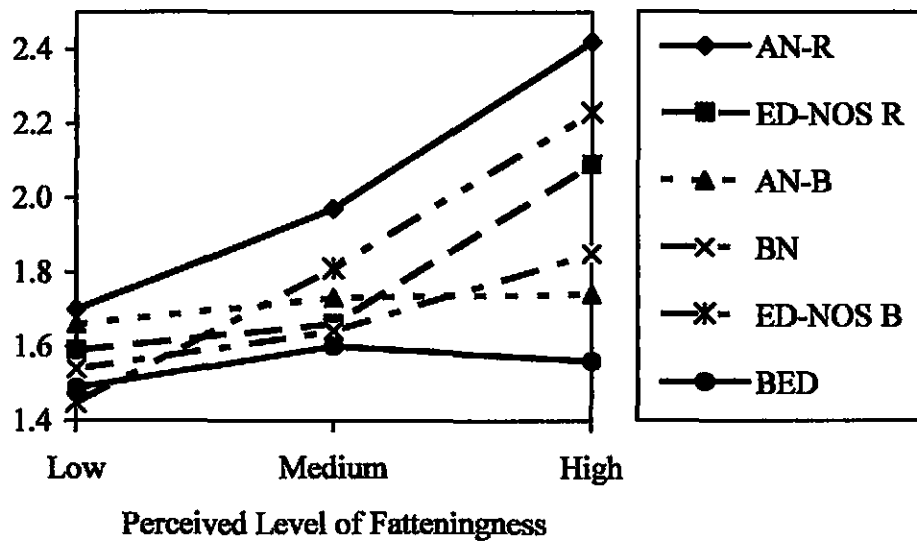
**Figure 7.** Mean fear and guilt for AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED as a function of perceived level of fatteningness.



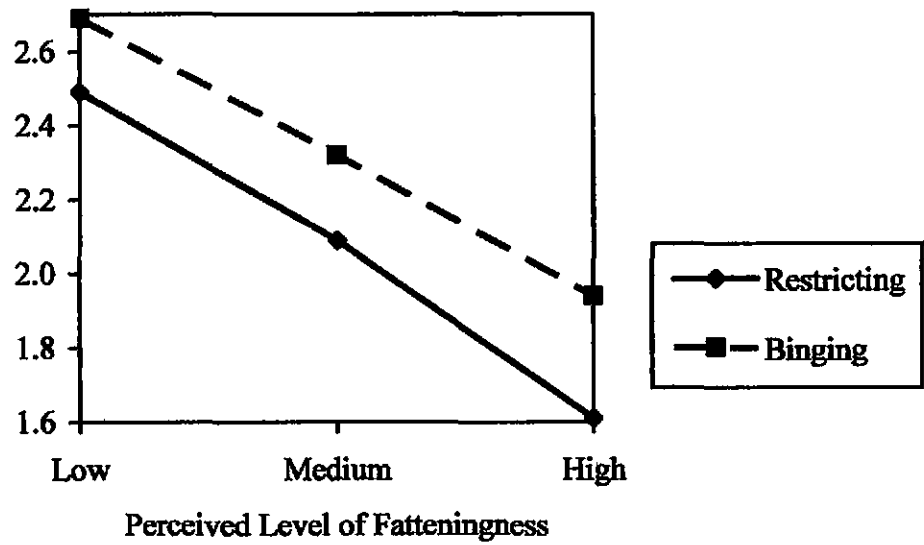
**Figure 8.** Mean ratings of appeal for AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED as a function of perceived level of fatteningness.



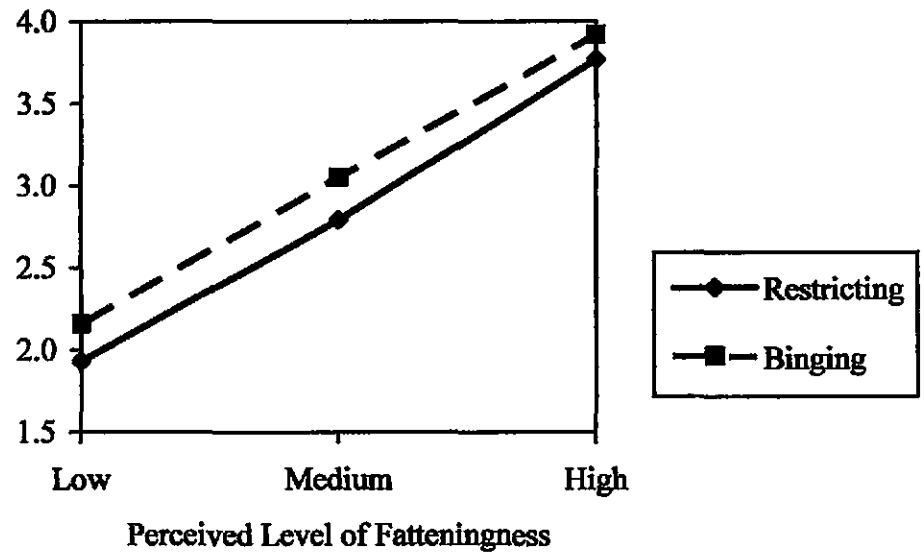
**Figure 9.** Mean number of foods designated as feared for AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED as a function of perceived level of fatteningness.



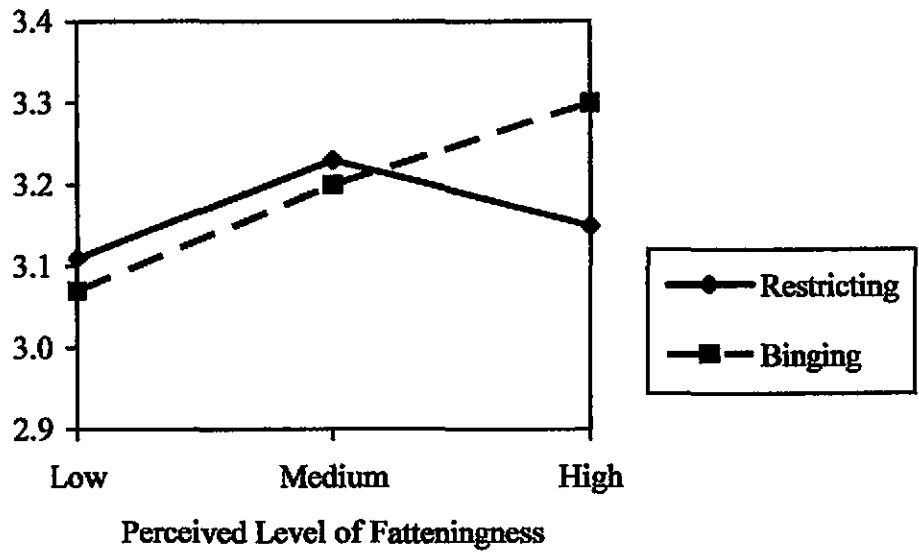
**Figure 10.** Mean negative discrepancy for AN-R, ED-NOS R, AN-B, BN, ED-NOS B, and BED as a function of perceived level of fatteningness.



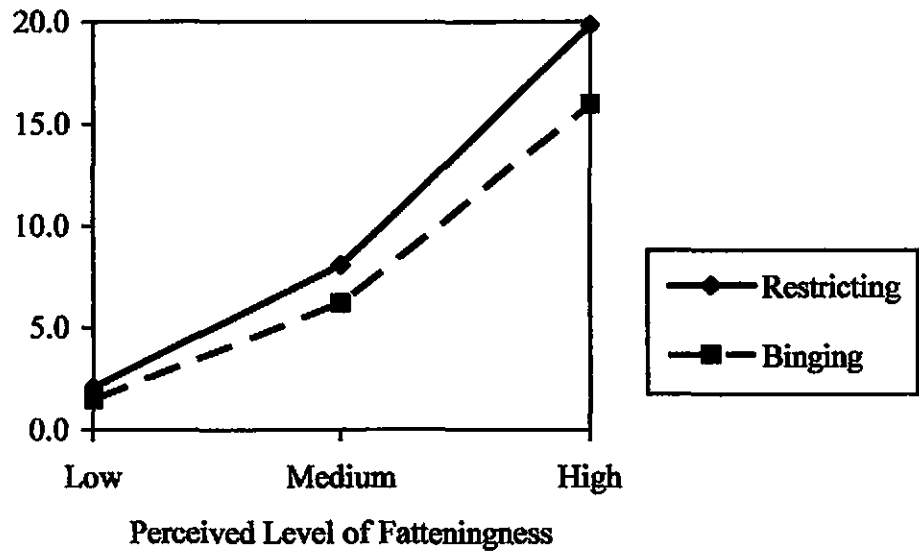
**Figure 11.** Mean frequency of consumption for restricting sub-types and bingeing sub-types as a function of perceived level of fatteningness.



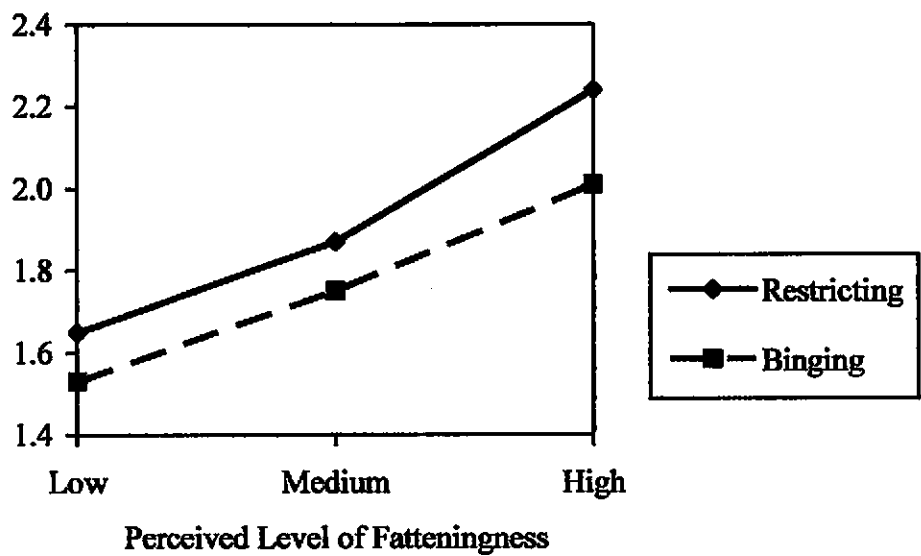
**Figure 12.** Mean fear and guilt for restricting sub-types and bingeing sub-types as a function of perceived level of fatteningness.



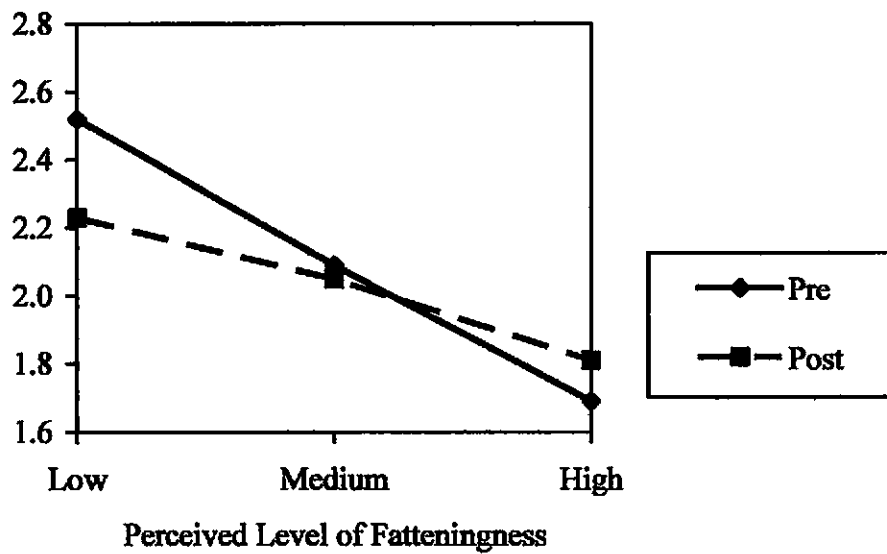
**Figure 13.** Mean ratings of appeal for restricting sub-types and bingeing sub-types as a function of perceived level of fatteningness.



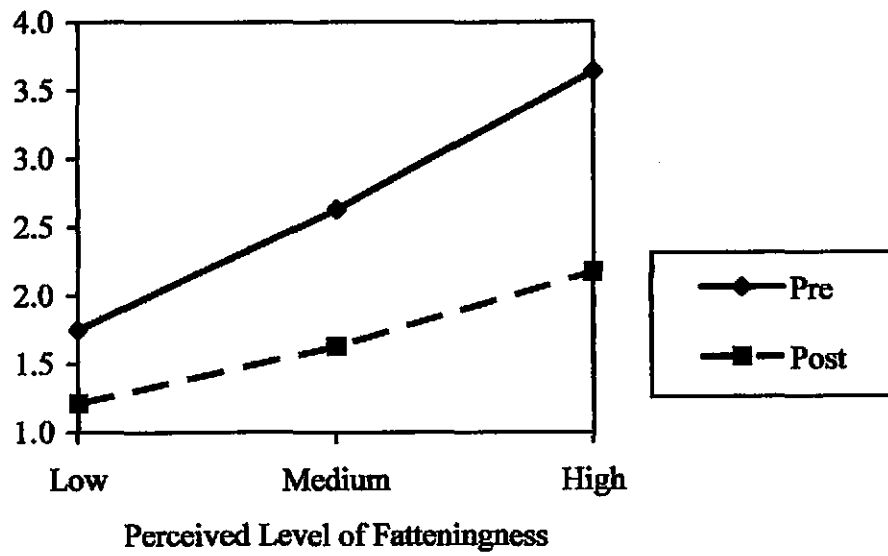
**Figure 14.** Mean number of foods designated as feared for restricting sub-types and bingeing sub-types as a function of perceived level of fatteningness.



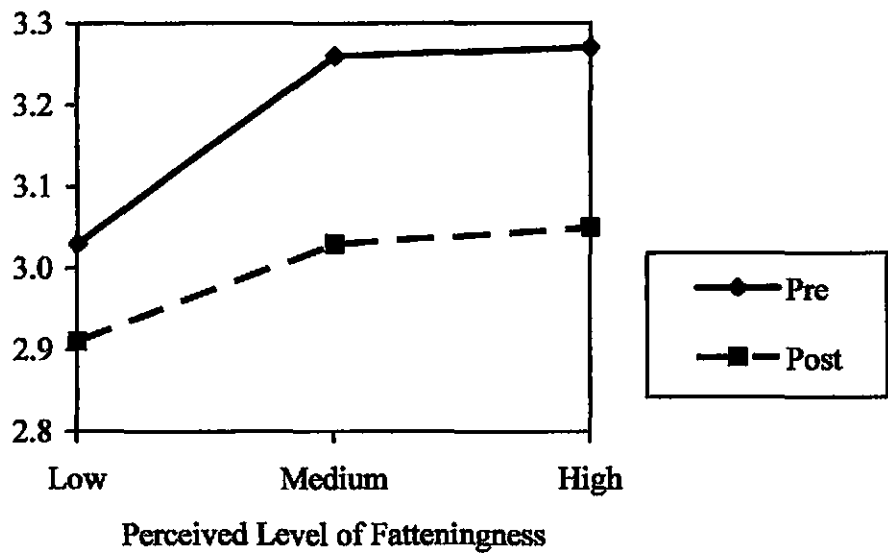
**Figure 15.** Mean negative discrepancy for restricting sub-types and binging sub-types as a function of perceived level of fatteningness.



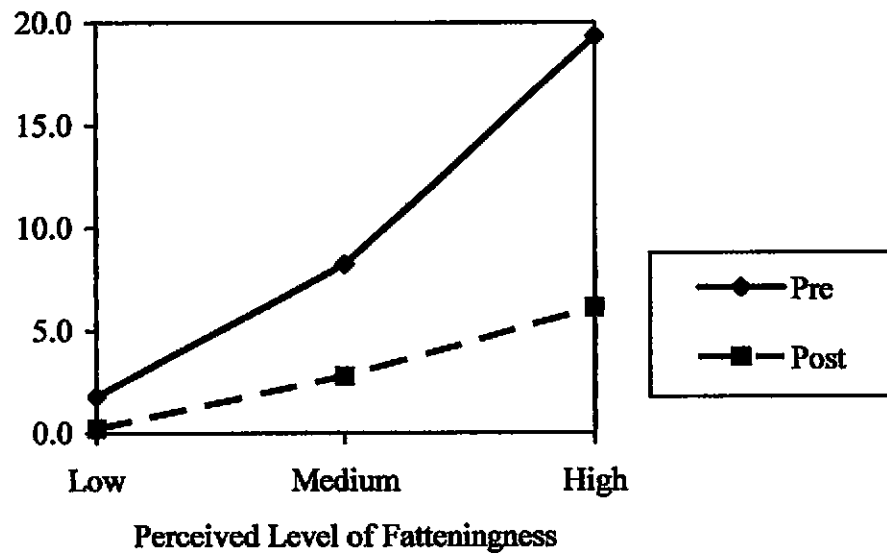
**Figure 16.** Mean frequency of consumption for pre- and post-CBT treatment as a function of perceived level of fatteningness.



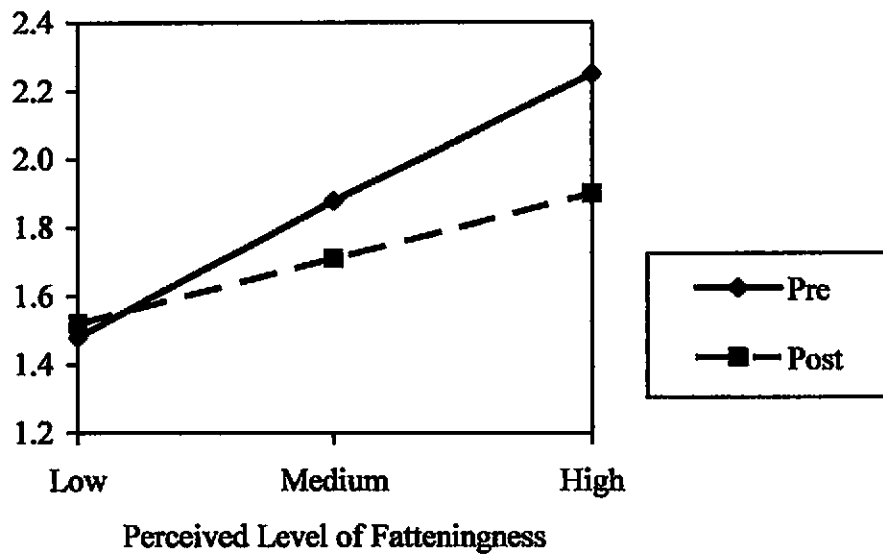
**Figure 17.** Mean fear and guilt for pre- and post-CBT treatment as a function of perceived level of fatteningness.



**Figure 18.** Mean ratings of appeal for pre- and post-CBT treatment as a function of perceived level of fatteningness.



**Figure 19.** Mean number of foods designated as feared for pre- and post-CBT treatment as a function of perceived level of fatteningness.



**Figure 20.** Mean negative discrepancy for pre- and post-CBT treatment as a function of perceived level of fatteningness.

## Appendix C

### Instruments

ID # \_\_\_\_\_

## FOOD SURVEY

Please rate each of the foods on the following pages according to:

- how frequently, on average, you have eaten that food over the past year  
If you have been hospitalized at any point during the past year, rate each item according to how frequently you have eaten it when you were not in the hospital.

- how much you have feared eating or felt guilty about eating that food over the past year  
Please rate this item independently from how often you have eaten the food and from how much you like the food:
  - for example, if you never eat spinach because you don't like spinach, but you would not feel at all fearful or guilty about eating spinach, you would assign a "1" for frequency and a "1" for fear/guilt in rating that item.
  - for example, if you never eat judges because you feel very fearful about eating it or would feel very guilty if you ate it, you would assign a "1" for frequency and a "3" for fear/guilt in rating that item.

### Interpreting food items

Note that some of the items specify the type of food very precisely - for example, the questionnaire asks separately about whole milk, 2% milk, and skim milk. Other items are not specific about particular characteristics of the food. In these cases, you should assume that you are being asked about the most usual or typical version of the food.

- for example, if the item simply says "hot dog," you should assume that the meat consists of beef and pork, since that is the most "typical" kind of hot dog.
  - for example, if the item says "hamburger sandwich," you should assume that the sandwich is made of 2 pieces of regular bread and is filled with tuna mixed with mayonnaise, since that is the most "usual" kind of hamburger sandwich.
- You should also assume that the items refer to usual or typical portion sizes.

Please check one of the following categories to describe yourself:

1.  non-vegetarian (I eat a range of foods that includes a variety of meats)  
Please check this category if you are someone who eats meat infrequently, but who does eat meat occasionally; the categories below should be endorsed only by people who **never** eat meat or **almost never** (no more than once or twice a year) eat meat.
2.  poultry/fish only (I eat poultry and fish, but do not eat other meats)
3.  fish only (I eat fish, but do not eat poultry or other meats)
4.  lacto-ovo vegetarian (I eat dairy products and eggs, but do not eat any meat or fish)
5.  vegan (I do not eat animal products of any kind, including dairy products or eggs)
6.  other (please explain)

**NOTE:** If you are a vegetarian or partial vegetarian, please do not include any ethical concerns in making the "fear/guilt" ratings on the following pages - rate the items according to the fear/guilt (if any) that you feel or would feel about eating specific foods for other reasons.

Please list below any foods to which you have an established allergic response:  
(you do not need to list foods that upset your stomach - only those foods to which you have a known allergy)

Please use these scales in rating each item for frequency and fear/guilt, circling one number in both columns:

Frequency:	never	rarely	occasionally	often	very often
	1	2	3	4	5
Fear/guilt:	none	slight	moderate	strong	very strong

	<u>Frequency</u>					<u>Fear/Guilt</u>					
1. regular cheese (e.g., cheddar, Swiss, Monterey Jack)	1	2	3	4	5	1	2	3	4	5	_____
2. oatmeal (plain)	1	2	3	4	5	1	2	3	4	5	_____
3. fried rice	1	2	3	4	5	1	2	3	4	5	_____
4. potato chips (low fat)	1	2	3	4	5	1	2	3	4	5	_____
5. baked chicken breast	1	2	3	4	5	1	2	3	4	5	_____
6. bacon	1	2	3	4	5	1	2	3	4	5	_____
7. grilled chicken sandwich	1	2	3	4	5	1	2	3	4	5	_____
8. spaghetti with meat sauce	1	2	3	4	5	1	2	3	4	5	_____
9. garden burger	1	2	3	4	5	1	2	3	4	5	_____
10. tomato or cucumber salad	1	2	3	4	5	1	2	3	4	5	_____
11. salmon	1	2	3	4	5	1	2	3	4	5	_____
12. snow peas (Chinese pea pods)	1	2	3	4	5	1	2	3	4	5	_____
13. candied yams	1	2	3	4	5	1	2	3	4	5	_____
14. avocado	1	2	3	4	5	1	2	3	4	5	_____
15. tomato juice or V-8 juice	1	2	3	4	5	1	2	3	4	5	_____
16. butterscotch or vanilla pudding (regular)	1	2	3	4	5	1	2	3	4	5	_____
17. ketchup	1	2	3	4	5	1	2	3	4	5	_____
18. carrot cake with cream cheese frosting	1	2	3	4	5	1	2	3	4	5	_____
19. corn	1	2	3	4	5	1	2	3	4	5	_____
20. turkey sandwich	1	2	3	4	5	1	2	3	4	5	_____
21. rice cake	1	2	3	4	5	1	2	3	4	5	_____
22. 2% milk	1	2	3	4	5	1	2	3	4	5	_____
23. pretzels	1	2	3	4	5	1	2	3	4	5	_____
24. caramel-coated popcorn (regular)	1	2	3	4	5	1	2	3	4	5	_____
25. taco with shredded beef	1	2	3	4	5	1	2	3	4	5	_____
26. tomato soup	1	2	3	4	5	1	2	3	4	5	_____
27. cappuccino or cocoa (low fat)	1	2	3	4	5	1	2	3	4	5	_____
28. chocolate chip cookies	1	2	3	4	5	1	2	3	4	5	_____
29. frozen yogurt	1	2	3	4	5	1	2	3	4	5	_____
30. apple	1	2	3	4	5	1	2	3	4	5	_____
31. taco salad	1	2	3	4	5	1	2	3	4	5	_____
32. sushi	1	2	3	4	5	1	2	3	4	5	_____
33. power bar or cereal bar	1	2	3	4	5	1	2	3	4	5	_____
34. skim milk	1	2	3	4	5	1	2	3	4	5	_____
35. soft or semi-soft cheese (e.g., brie, camembert)	1	2	3	4	5	1	2	3	4	5	_____
36. hamburger	1	2	3	4	5	1	2	3	4	5	_____
37. green salad with regular salad dressing	1	2	3	4	5	1	2	3	4	5	_____
38. tea or iced tea	1	2	3	4	5	1	2	3	4	5	_____
39. fudgecicle (low fat)	1	2	3	4	5	1	2	3	4	5	_____
40. cantaloupe or honeydew melon	1	2	3	4	5	1	2	3	4	5	_____

Frequency:            never            rarely            occasionally            often            very often  
                                  1                    2                    3                    4                    5  
 Fear/guilt:            none            slight            moderate            strong            very strong

	Frequency					Fear/Guilt				
	1	2	3	4	5	1	2	3	4	5
41. milkshake										
42. cheese lasagna										
43. muffin (blueberry or cranberry)										
44. white rice										
45. omelet made with egg whites or low-fat egg substitute										
46. dried vegetable chips										
47. fried calamari										
48. steak										
49. tuna sandwich										
50. cheese/veggie wrap or pita										
51. miso soup										
52. mixed vegetables with butter sauce										
53. baked potato										
54. grapes										
55. cappuccino or cocoa (regular milk)										
56. fruit juice popsicle										
57. mustard										
58. berries with cream, whipped cream, or sour cream										
59. macaroni salad										
60. meatless chili and rice										
61. fruit yogurt										
62. cereal										
63. doughnut										
64. potato chips (regular)										
65. plate lunch with teriyaki beef										
66. asparagus										
67. french fries										
68. fruit juice (apple, orange, guava, passion fruit)										
69. hot fudge sundae										
70. snack cakes (e.g., Twinkies, Hotties, Ding Dongs)										
71. margarine (regular)										
72. green salad with vinegar or lemon juice										
73. grilled mahi burger										
74. bean burrito										
75. soy milk or rice cream										
76. cheese omelet (whole eggs, regular cheese)										
77. whole wheat bread										
78. scone										
79. popcorn (plain, air-popped)										
80. pastrami or corned beef sandwich										

Frequency:	never	rarely	occasionally	often	very often						
Fear/guilt:	1 none	2 slight	3 moderate	4 strong	5 very strong						
	<u>Frequency</u>					<u>Fear/Guilt</u>					
81. fettucine alfredo	1	2	3	4	5	1	2	3	4	5	_____
82. green beans	1	2	3	4	5	1	2	3	4	5	_____
83. mango or papaya	1	2	3	4	5	1	2	3	4	5	_____
84. protein drink	1	2	3	4	5	1	2	3	4	5	_____
85. beer	1	2	3	4	5	1	2	3	4	5	_____
86. brownies	1	2	3	4	5	1	2	3	4	5	_____
87. tabasco or chili sauce	1	2	3	4	5	1	2	3	4	5	_____
88. strawberries	1	2	3	4	5	1	2	3	4	5	_____
89. peas	1	2	3	4	5	1	2	3	4	5	_____
90. manapua (steamed, with pork filling)	1	2	3	4	5	1	2	3	4	5	_____
91. cottage cheese (low fat)	1	2	3	4	5	1	2	3	4	5	_____
92. brown rice	1	2	3	4	5	1	2	3	4	5	_____
93. cinnamon roll	1	2	3	4	5	1	2	3	4	5	_____
94. crackers (e.g., saltines, soda crackers)	1	2	3	4	5	1	2	3	4	5	_____
95. turkey (white meat)	1	2	3	4	5	1	2	3	4	5	_____
96. fried fish	1	2	3	4	5	1	2	3	4	5	_____
97. spam	1	2	3	4	5	1	2	3	4	5	_____
98. macaroni and cheese	1	2	3	4	5	1	2	3	4	5	_____
99. chicken noodle soup	1	2	3	4	5	1	2	3	4	5	_____
100. jello (diet)	1	2	3	4	5	1	2	3	4	5	_____
101. fruit smoothie	1	2	3	4	5	1	2	3	4	5	_____
102. hot dog and bun	1	2	3	4	5	1	2	3	4	5	_____
103. sun chips or wheat chips	1	2	3	4	5	1	2	3	4	5	_____
104. trail mix (nuts, sunflower seeds, dried fruit)	1	2	3	4	5	1	2	3	4	5	_____
105. pork or beef chow mein with noodles	1	2	3	4	5	1	2	3	4	5	_____
106. potato salad	1	2	3	4	5	1	2	3	4	5	_____
107. coffee or iced coffee	1	2	3	4	5	1	2	3	4	5	_____
108. oatmeal cookies	1	2	3	4	5	1	2	3	4	5	_____
109. margarine (low fat)	1	2	3	4	5	1	2	3	4	5	_____
110. tofu with vegetables	1	2	3	4	5	1	2	3	4	5	_____
111. hard-boiled egg (whole)	1	2	3	4	5	1	2	3	4	5	_____
112. English muffin	1	2	3	4	5	1	2	3	4	5	_____
113. popcorn (regular, buttered)	1	2	3	4	5	1	2	3	4	5	_____
114. shoyu chicken	1	2	3	4	5	1	2	3	4	5	_____
115. kalua pork	1	2	3	4	5	1	2	3	4	5	_____
116. pasta with vegetables and olive oil	1	2	3	4	5	1	2	3	4	5	_____
117. cauliflower	1	2	3	4	5	1	2	3	4	5	_____
118. banana	1	2	3	4	5	1	2	3	4	5	_____
119. ice cream bar (e.g., Dove Bar)	1	2	3	4	5	1	2	3	4	5	_____
120. butter	1	2	3	4	5	1	2	3	4	5	_____

Frequency:	never	rarely	occasionally	often	very often					
Fear/guilt:	none	slight	moderate	strong	very strong					
	1	2	3	4	5					
	<u>Frequency</u>					<u>Fear/Guilt</u>				
121. orange	1	2	3	4	5	1	2	3	4	5
122. bean salad	1	2	3	4	5	1	2	3	4	5
123. carrots	1	2	3	4	5	1	2	3	4	5
124. wine	1	2	3	4	5	1	2	3	4	5
125. jello (regular)	1	2	3	4	5	1	2	3	4	5
126. plain yogurt	1	2	3	4	5	1	2	3	4	5
127. cream cheese	1	2	3	4	5	1	2	3	4	5
128. bagel (plain)	1	2	3	4	5	1	2	3	4	5
129. waffle or pancakes with syrup	1	2	3	4	5	1	2	3	4	5
130. nuts (peanuts, macadamias, cashews, pecans)	1	2	3	4	5	1	2	3	4	5
131. fried chicken	1	2	3	4	5	1	2	3	4	5
132. Portuguese sausage	1	2	3	4	5	1	2	3	4	5
133. stuffed peppers with rice and tomatoes	1	2	3	4	5	1	2	3	4	5
134. cheese and veggie pizza	1	2	3	4	5	1	2	3	4	5
135. chicken broth	1	2	3	4	5	1	2	3	4	5
136. grilled chicken caesar salad	1	2	3	4	5	1	2	3	4	5
137. Portuguese bean soup	1	2	3	4	5	1	2	3	4	5
138. creamed spinach	1	2	3	4	5	1	2	3	4	5
139. raisins or dried fruit	1	2	3	4	5	1	2	3	4	5
140. Diet Coke or Pepsi	1	2	3	4	5	1	2	3	4	5
141. mocha (regular milk, whipped cream)	1	2	3	4	5	1	2	3	4	5
142. shave ice	1	2	3	4	5	1	2	3	4	5
143. malasadas	1	2	3	4	5	1	2	3	4	5
144. premium ice cream (e.g., Ben & Jerry's)	1	2	3	4	5	1	2	3	4	5
145. soy sauce	1	2	3	4	5	1	2	3	4	5
146. sour cream (regular)	1	2	3	4	5	1	2	3	4	5
147. chicken or shrimp stir fry	1	2	3	4	5	1	2	3	4	5
148. crackers (e.g., Ritz, Triscuits)	1	2	3	4	5	1	2	3	4	5
149. cottage cheese (regular)	1	2	3	4	5	1	2	3	4	5
150. whole milk	1	2	3	4	5	1	2	3	4	5
151. white bread	1	2	3	4	5	1	2	3	4	5
152. granola bar	1	2	3	4	5	1	2	3	4	5
153. canned tuna (water-packed)	1	2	3	4	5	1	2	3	4	5
154. lean ground beef	1	2	3	4	5	1	2	3	4	5
155. barbecued ribs	1	2	3	4	5	1	2	3	4	5
156. baked potato stuffed with cheese	1	2	3	4	5	1	2	3	4	5
157. peanut butter sandwich	1	2	3	4	5	1	2	3	4	5
158. lima beans	1	2	3	4	5	1	2	3	4	5
159. kahlua and cream	1	2	3	4	5	1	2	3	4	5
160. mayonnaise	1	2	3	4	5	1	2	3	4	5

Frequency:	never	rarely	occasionally	often	very often
	1	2	3	4	5
Fear/guilt:	none	slight	moderate	strong	very strong

	<u>Frequency</u>					<u>Fear/Guilt</u>					
161. low-fat cheese (cheddar, Swiss, Monterey jack)	1	2	3	4	5	1	2	3	4	5	_____
162. muffin (bran)	1	2	3	4	5	1	2	3	4	5	_____
163. broiled fish	1	2	3	4	5	1	2	3	4	5	_____
164. lean roast beef	1	2	3	4	5	1	2	3	4	5	_____
165. ham and cheese sandwich	1	2	3	4	5	1	2	3	4	5	_____
166. vegetable quiche	1	2	3	4	5	1	2	3	4	5	_____
167. nachos with cheese	1	2	3	4	5	1	2	3	4	5	_____
168. New England clam chowder	1	2	3	4	5	1	2	3	4	5	_____
169. onion rings	1	2	3	4	5	1	2	3	4	5	_____
170. low-fat ice cream	1	2	3	4	5	1	2	3	4	5	_____
171. candy bar (e.g., Milky Way, Snickers)	1	2	3	4	5	1	2	3	4	5	_____
172. hollandaise or bearnaise sauce	1	2	3	4	5	1	2	3	4	5	_____
173. ham	1	2	3	4	5	1	2	3	4	5	_____
174. broccoli with cheese sauce	1	2	3	4	5	1	2	3	4	5	_____
175. vanilla wafers	1	2	3	4	5	1	2	3	4	5	_____
176. cheesecake	1	2	3	4	5	1	2	3	4	5	_____
177. regular Coke or Pepsi	1	2	3	4	5	1	2	3	4	5	_____
178. corned beef	1	2	3	4	5	1	2	3	4	5	_____
179. turkey frankfurter	1	2	3	4	5	1	2	3	4	5	_____
180. cocktail shrimp	1	2	3	4	5	1	2	3	4	5	_____

*Please list and rate below up to 3 foods not noted on this questionnaire that you eat frequently:*

_____	1	2	3	4	5	1	2	3	4	5
_____	1	2	3	4	5	1	2	3	4	5
_____	1	2	3	4	5	1	2	3	4	5

*Please list and rate below up to 3 foods not noted on this questionnaire list that you fear eating or feel guilty about eating:*

_____	1	2	3	4	5	1	2	3	4	5
_____	1	2	3	4	5	1	2	3	4	5
_____	1	2	3	4	5	1	2	3	4	5

## FOOD SURVEY: II

*Please rate each of the foods on the following pages according to how desirable or appealing you find this food.*

*In this case, we are asking about how much you like the food purely in terms of how much it appeals to you, independently from any other considerations about whether you consider the food healthy/unhealthy, safe/dangerous, fattening/slimming, cheap/expensive, easy/difficult, or ethical/unethical.*

*If there were no relationship between this food and health, weight, or any other kinds of considerations, how appealing or desirable would this food be for you?*

1
2
3
4
5  
 not at all      slightly      moderately      considerably      extremely

	Appeal					
	1	2	3	4	5	
1. regular cheese (e.g., cheddar, Swiss, Monterey jack)	1	2	3	4	5	_____
2. oatmeal (plain)	1	2	3	4	5	_____
3. fried rice	1	2	3	4	5	_____
4. potato chips (low fat)	1	2	3	4	5	_____
5. baked chicken breast	1	2	3	4	5	_____
6. bacon	1	2	3	4	5	_____
7. grilled chicken sandwich	1	2	3	4	5	_____
8. spaghetti with meat sauce	1	2	3	4	5	_____
9. garden burger	1	2	3	4	5	_____
10. tomato or cucumber salad	1	2	3	4	5	_____
11. saimin	1	2	3	4	5	_____
12. snow peas (Chinese pea pods)	1	2	3	4	5	_____
13. candied yams	1	2	3	4	5	_____
14. avocado	1	2	3	4	5	_____
15. tomato juice or V-8 juice	1	2	3	4	5	_____
16. butterscotch or vanilla pudding (regular)	1	2	3	4	5	_____
17. ketchup	1	2	3	4	5	_____
18. carrot cake with cream cheese frosting	1	2	3	4	5	_____
19. corn	1	2	3	4	5	_____
20. turkey sandwich	1	2	3	4	5	_____
21. rice cake	1	2	3	4	5	_____
22. 2% milk	1	2	3	4	5	_____
23. pretzels	1	2	3	4	5	_____
24. caramel-coated popcorn (regular)	1	2	3	4	5	_____
25. taco with shredded beef	1	2	3	4	5	_____
26. tomato soup	1	2	3	4	5	_____
27. cappuccino or cocoa (low fat)	1	2	3	4	5	_____
28. chocolate chip cookies	1	2	3	4	5	_____
29. frozen yogurt	1	2	3	4	5	_____
30. apple	1	2	3	4	5	_____

*If there were no relationship between this food and health, weight, or any other kinds of considerations, how appealing or desirable would this food be for you?*

	1	2	3	4	5	
	not at all	slightly	moderately	considerably	extremely	
	<u>Appeal</u>					
31. taco salad	1	2	3	4	5	_____
32. sushi	1	2	3	4	5	_____
33. power bar or cereal bar	1	2	3	4	5	_____
34. skim milk	1	2	3	4	5	_____
35. soft or semi-soft cheese (e.g., brie, camembert)	1	2	3	4	5	_____
36. hamburger	1	2	3	4	5	_____
37. green salad with regular salad dressing	1	2	3	4	5	_____
38. tea or iced tea	1	2	3	4	5	_____
39. fudgesicle (low fat)	1	2	3	4	5	_____
40. cantaloupe or honeydew melon	1	2	3	4	5	_____
41. milkshake	1	2	3	4	5	_____
42. cheese lasagna	1	2	3	4	5	_____
43. muffin (blueberry or cranberry)	1	2	3	4	5	_____
44. white rice	1	2	3	4	5	_____
45. omelet made with egg whites or low-fat egg substitute	1	2	3	4	5	_____
46. dried vegetable chips	1	2	3	4	5	_____
47. fried calamari	1	2	3	4	5	_____
48. steak	1	2	3	4	5	_____
49. tuna sandwich	1	2	3	4	5	_____
50. cheese/veggie wrap or pita	1	2	3	4	5	_____
51. miso soup	1	2	3	4	5	_____
52. mixed vegetables with butter sauce	1	2	3	4	5	_____
53. baked potato	1	2	3	4	5	_____
54. grapes	1	2	3	4	5	_____
55. cappuccino or cocoa (regular milk)	1	2	3	4	5	_____
56. fruit juice popsicle	1	2	3	4	5	_____
57. mustard	1	2	3	4	5	_____
58. berries with cream, whipped cream, or sour cream	1	2	3	4	5	_____
59. macaroni salad	1	2	3	4	5	_____
60. meatless chili and rice	1	2	3	4	5	_____
61. fruit yogurt	1	2	3	4	5	_____
62. cereal	1	2	3	4	5	_____
63. doughnut	1	2	3	4	5	_____
64. potato chips (regular)	1	2	3	4	5	_____
65. plate lunch with teriyaki beef	1	2	3	4	5	_____
66. asparagus	1	2	3	4	5	_____
67. french fries	1	2	3	4	5	_____
68. fruit juice (apple, orange, guava, passion fruit)	1	2	3	4	5	_____
69. hot fudge sundae	1	2	3	4	5	_____
70. snack cakes (e.g., Twinkies, HoHos, Ding Dongs)	1	2	3	4	5	_____

If there were no relationship between this food and health, weight, or any other kinds of considerations, how appealing or desirable would this food be for you?

1                      2                      3                      4                      5  
 not at all            slightly            moderately            considerably            extremely

Appeal

71. margarine (regular)	1	2	3	4	5	_____
72. green salad with vinegar or lemon juice	1	2	3	4	5	_____
73. grilled mahi burger	1	2	3	4	5	_____
74. bean burrito	1	2	3	4	5	_____
75. soy milk or rice cream	1	2	3	4	5	_____
76. cheese omelet (whole eggs, regular cheese)	1	2	3	4	5	_____
77. whole wheat bread	1	2	3	4	5	_____
78. scone	1	2	3	4	5	_____
79. popcorn (plain, air-popped)	1	2	3	4	5	_____
80. pastrami or corned beef sandwich	1	2	3	4	5	_____
81. fancine alfredo	1	2	3	4	5	_____
82. green beans	1	2	3	4	5	_____
83. mango or papaya	1	2	3	4	5	_____
84. protein drink	1	2	3	4	5	_____
85. beer	1	2	3	4	5	_____
86. brownies	1	2	3	4	5	_____
87. tabasco or chili sauce	1	2	3	4	5	_____
88. strawberries	1	2	3	4	5	_____
89. peas	1	2	3	4	5	_____
90. mansup (steamed, with pork filling)	1	2	3	4	5	_____
91. cottage cheese (low fat)	1	2	3	4	5	_____
92. brown rice	1	2	3	4	5	_____
93. cinnamon roll	1	2	3	4	5	_____
94. crackers (e.g., saltines, soda crackers)	1	2	3	4	5	_____
95. turkey (white meat)	1	2	3	4	5	_____
96. fried fish	1	2	3	4	5	_____
97. spam	1	2	3	4	5	_____
98. macaroni and cheese	1	2	3	4	5	_____
99. chicken noodle soup	1	2	3	4	5	_____
100. jello (diet)	1	2	3	4	5	_____
101. fruit smoothie	1	2	3	4	5	_____
102. hot dog and bun	1	2	3	4	5	_____
103. sun chips or wheat chips	1	2	3	4	5	_____
104. trail mix (nuts, sunflower seeds, dried fruit)	1	2	3	4	5	_____
105. pork or beef chow mein with noodles	1	2	3	4	5	_____
106. potato salad	1	2	3	4	5	_____
107. coffee or iced coffee	1	2	3	4	5	_____
108. oatmeal cookies	1	2	3	4	5	_____
109. margarine (low fat)	1	2	3	4	5	_____
110. tofu with vegetables	1	2	3	4	5	_____

*If there were no relationship between this food and health, weight, or any other kinds of considerations, how appealing or desirable would this food be for you?*

1
2
3
4
5  
 not at all      slightly      moderately      considerably      extremely

	<u>Appeal</u>					
	1	2	3	4	5	
111. hard-boiled egg (whole)	1	2	3	4	5	_____
112. English muffin	1	2	3	4	5	_____
113. popcorn (regular, buttered)	1	2	3	4	5	_____
114. shoyu chicken	1	2	3	4	5	_____
115. kalua pork	1	2	3	4	5	_____
116. pasta with vegetables and olive oil	1	2	3	4	5	_____
117. cauliflower	1	2	3	4	5	_____
118. banana	1	2	3	4	5	_____
119. ice cream bar (e.g., Dove Bar)	1	2	3	4	5	_____
120. butter	1	2	3	4	5	_____
121. orange	1	2	3	4	5	_____
122. bean salad	1	2	3	4	5	_____
123. carrots	1	2	3	4	5	_____
124. wine	1	2	3	4	5	_____
125. jello (regular)	1	2	3	4	5	_____
126. plain yogurt	1	2	3	4	5	_____
127. cream cheese	1	2	3	4	5	_____
128. bagel (plain)	1	2	3	4	5	_____
129. waffle or pancakes with syrup	1	2	3	4	5	_____
130. nuts (peanuts, macadamias, cashews, pecans)	1	2	3	4	5	_____
131. fried chicken	1	2	3	4	5	_____
132. Portuguese sausage	1	2	3	4	5	_____
133. stuffed peppers with rice and tomatoes	1	2	3	4	5	_____
134. cheese and veggie pizza	1	2	3	4	5	_____
135. chicken broth	1	2	3	4	5	_____
136. grilled chicken caesar salad	1	2	3	4	5	_____
137. Portuguese bean soup	1	2	3	4	5	_____
138. creamed spinach	1	2	3	4	5	_____
139. raisins or dried fruit	1	2	3	4	5	_____
140. Diet Coke or Pepsi	1	2	3	4	5	_____
141. mocha (regular milk, whipped cream)	1	2	3	4	5	_____
142. shave ice	1	2	3	4	5	_____
143. malasadas	1	2	3	4	5	_____
144. premium ice cream (e.g., Ben & Jerry's)	1	2	3	4	5	_____
145. soy sauce	1	2	3	4	5	_____
146. sour cream (regular)	1	2	3	4	5	_____
147. chicken or shrimp stir fry	1	2	3	4	5	_____
148. crackers (e.g., Ritz, Triscuits)	1	2	3	4	5	_____
149. cottage cheese (regular)	1	2	3	4	5	_____
150. whole milk	1	2	3	4	5	_____

If there were ~~no relationship~~ between this food and health, weight, or any other kinds of considerations, how appealing or desirable would this food be for you?

	1	2	3	4	5	
	not at all	slightly	moderately	considerably	extremely	
	<u>Appeal</u>					
151. white bread	1	2	3	4	5	_____
152. granola bar	1	2	3	4	5	_____
153. canned tuna (water-packed)	1	2	3	4	5	_____
154. lean ground beef	1	2	3	4	5	_____
155. barbecued ribs	1	2	3	4	5	_____
156. baked potato stuffed with cheese	1	2	3	4	5	_____
157. peanut butter sandwich	1	2	3	4	5	_____
158. lima beans	1	2	3	4	5	_____
159. kahlua and cream	1	2	3	4	5	_____
160. mayonnaise	1	2	3	4	5	_____
161. low-fat cheese (cheddar, Swiss, Monterey jack)	1	2	3	4	5	_____
162. muffin (bran)	1	2	3	4	5	_____
163. broiled fish	1	2	3	4	5	_____
164. lean roast beef	1	2	3	4	5	_____
165. ham and cheese sandwich	1	2	3	4	5	_____
166. vegetable quiche	1	2	3	4	5	_____
167. nachos with cheese	1	2	3	4	5	_____
168. New England clam chowder	1	2	3	4	5	_____
169. onion rings	1	2	3	4	5	_____
170. low-fat ice cream	1	2	3	4	5	_____
171. candy bar (e.g., Milky Way, Snickers)	1	2	3	4	5	_____
172. hollandaise or bearnaise sauce	1	2	3	4	5	_____
173. ham	1	2	3	4	5	_____
174. broccoli with cheese sauce	1	2	3	4	5	_____
175. vanilla wafers	1	2	3	4	5	_____
176. cheesecake	1	2	3	4	5	_____
177. regular Coke or Pepsi	1	2	3	4	5	_____
178. corned beef	1	2	3	4	5	_____
179. turkey frankfurter	1	2	3	4	5	_____
180. cocktail shrimp	1	2	3	4	5	_____

Please list and rate below up to 3 foods not noted on this questionnaire that you find appealing/desirable. Rate each one to indicate how frequently you eat it (1 = never, 5 = very often), how much fear/guilt you feel about eating it (1 = none, 5 = very strong), and how appealing you find it (using the scale above).

	<u>Frequency</u>	<u>Fear/Guilt</u>	<u>Appeal</u>
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
_____	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

# EATING DISORDERS EXAMINATION CODING FORM

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Age: \_\_\_\_\_ Sex: \_\_\_\_\_ Interviewer: \_\_\_\_\_

**Severity Ratings (SR)**

- 0 = absence of feature
- 1 = feature almost, but not quite, absent
- 2 =
- 3 = severity midway between 0 and 6
- 4 =
- 5 = feature present to a degree not quite severe enough to justify a rating of 6
- 6 = feature present to an extreme degree

**Frequency Ratings (FR)**

- 0 = absence of feature
- 1 = 1-5 days
- 2 = 6-12 days
- 3 = 13-15 days
- 4 = 16-22 days
- 5 = 23-27 days
- 6 = feature present every day

**GENERAL QUESTIONS**

current 28 days:

2 mos. previous:

**1. PATTERN OF EATING**

*"I would like to ask about your pattern of eating. Over the past four weeks, which of these meals and snacks have you eaten on a regular basis?"*

	actual#	FR
a. breakfast	_____	_____
b. mid-morning snack	_____	_____
c. lunch	_____	_____
d. mid-afternoon snack	_____	_____
e. evening meal	_____	_____
f. evening snack	_____	_____
g. nocturnal snack	_____	_____

**2. RESTRAINT OVER EATING (FR)**

*"Over the past four weeks have you been consciously trying to restrict what you eat, whether or not you have succeeded?"*

*"Has this been to try to influence your shape or weight?"*

**3. AVOIDANCE OF EATING (FR)**

*"Over the past four weeks have you gone for periods of eight or more waking hours without eating anything?"*

*"Has this been to try to influence your shape or weight?"*

---

**4. EMPTY STOMACH (FR)**

*"Over the past four weeks have you wanted your stomach to be empty?"*

*"Why?"*

---

**5. FOOD AVOIDANCE (FR)**

*"Over the past four weeks have you tried to avoid eating foods which you like, whether or not you have succeeded?"*

*"Has this been to influence your shape or weight?"*

Specific foods:

---

**6. DIETARY RULES (FR)**

*"Over the past four weeks have you tried to follow certain definite rules regarding your eating; for example, a calorie limit, pre-set quantities of food, or rules about what you should eat or when you should eat?"*

*"Have there been occasions when you have been aware that you have broken a dietary rule that you have set for yourself?"*

*"Have these rules been designed to influence your shape or weight?"*

\* What are these rules?

**7. PREOCCUPATION WITH FOOD, EATING, OR CALORIES (FR)** \_\_\_\_\_

*"Over the past four weeks have you spent much time between meals thinking about food, eating, calories, or fat grams?"*

*"Has thinking about food, eating, or calories interfered with your ability to concentrate? How about concentrating on things you are interested in, for example reading, watching television, or following a conversation?"*

---

**8. FEAR OF LOSING CONTROL OVER EATING (FR)** \_\_\_\_\_

*"Over the past four weeks have you been afraid of losing control over eating?"*

---

**BULIMIC EPISODES AND OTHER EPISODES OF OVEREATING**

*"I would like to ask you about any episodes of overeating that you may have had over the past four weeks. Different people mean different things by overeating. I would like you to describe any times when you have felt that you have eaten too much at one time."*

If yes: *"When was that?"*

To assess amount of food eaten: *"Typically, what have you eaten at these times?"*

To assess loss of control: *"Did you have a sense of loss of control at the time?"*

*"Did you feel like you couldn't stop eating once you started?"*

*"Did you feel like you couldn't have prevented this episode from happening?"*

To assess duration: *"How long has this been going on?"*

**9. OBJECTIVE BULIMIC EPISODES**

MONTH 1  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

MONTH 2  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

MONTH 3  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

weeks free \_\_\_\_\_  
duration (months) \_\_\_\_\_

days and episodes:  
00 = none  
777 = too great to calculate

duration:  
100 = 5-10 years  
666 = 10+ years

---

**10. OBJECTIVE OVEREATING**

MONTH 1  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

MONTH 2  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

MONTH 3  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

weeks free \_\_\_\_\_  
duration (months) \_\_\_\_\_

---

**11. SUBJECTIVE BULIMIC EPISODES**

MONTH 1  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

MONTH 2  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

MONTH 3  
Days \_\_\_\_\_  
Episodes \_\_\_\_\_

weeks free \_\_\_\_\_  
duration (months) \_\_\_\_\_

\* do not rate subjective overeating

**12. DIETARY RESTRICTION OUTSIDE BULIMIC EPISODES**

(Note: Only ask if patient had OBEs during the past month)

*"Outside of these times when you have lost control over eating (refer to objective and subjective bulimic episodes) how much have you been restricting the amount that you eat?"*

MONTH 1 \_\_\_\_\_

MONTH 2 \_\_\_\_\_

MONTH 3 \_\_\_\_\_

*"Has this been to influence your shape or weight?"*

0 = no restraint

1 = extreme restraint

2 = fasting

duration (months) \_\_\_\_\_

100 = 5-10 years

666 = 10+ years

**13. SOCIAL EATING (FR)**

*"over the past four weeks have you been concerned about other people seeing you eat?"*

\_\_\_\_\_

**14. EATING IN SECRET (FR)**

*"Over the past four weeks have you eaten in secret?"*

\_\_\_\_\_

**15. GUILT ABOUT EATING (% of meals eaten)**

*"Over the past four weeks have you felt guilty after eating?"*

\_\_\_\_\_

**16. SELF-INDUCED VOMITING (FR)**

*"Over the past four weeks have you made yourself sick as a means of controlling your shape or weight?"*

MONTH 1

Days \_\_\_\_\_

Episodes \_\_\_\_\_

MONTH 2

Episodes \_\_\_\_\_

MONTH 3

Episodes \_\_\_\_\_

777 = episodes too great to calculate

100 = 5-10 years

666 = 10+ years

weeks free (identify which weeks) \_\_\_\_\_

duration (months) \_\_\_\_\_

**17. LAXATIVE MISUSE (FR)**

*"Over the past four weeks have you taken laxatives as a means of controlling your shape or weight?"*

Types of laxatives taken:

100 = 5-10 years  
666 = 10+ years

**MONTH 1**

Days \_\_\_\_\_

Episodes \_\_\_\_\_

Average number taken \_\_\_\_\_

**MONTH 2**

Episodes \_\_\_\_\_

**MONTH 3**

Episodes \_\_\_\_\_

weeks free (identify which weeks) \_\_\_\_\_

duration (months) \_\_\_\_\_

**18. DIURETIC MISUSE (FR)**

*"Over the past four weeks have you taken diuretics as a means of controlling your shape or weight?"*

Types of diuretics taken:

100 = 5-10 years  
666 = 10+ years

**MONTH 1**

Days \_\_\_\_\_

Episodes \_\_\_\_\_

Average number taken \_\_\_\_\_

**MONTH 2**

Episodes \_\_\_\_\_

**MONTH 3**

Episodes \_\_\_\_\_

weeks free (identify which weeks) \_\_\_\_\_

duration (months) \_\_\_\_\_

**19. INTENSE EXERCISING TO CONTROL SHAPE OR WEIGHT (FR)**

*"Over the past four weeks have you exercised as a means of controlling your weight, altering your shape or amount of fat, or burning calories?"*

*"Typically, what form of exercise have you done?"*

100 = 5-10 years  
666 = 10+ years

**MONTH 1**

average time spent (hours) \_\_\_\_\_

**MONTH 2** \_\_\_\_\_

**MONTH 3** \_\_\_\_\_

weeks free \_\_\_\_\_

If frequency 4, 5, or 6 for each month, rate duration.

duration (months) \_\_\_\_\_

**DIAGNOSTIC EXTRA QUESTION (FR)**  
*"Over the past four weeks have you done anything else to control your shape or weight?"*

Specify nature of acts, combine different acts to derive a total

MONTH 1			
Days	_____	_____	_____
Episodes	_____	_____	_____
MONTH 2			
Days	_____	_____	_____
MONTH 3			
Days	_____	_____	_____

**WEIGHT CONTROL CHECKLIST**

Dieting strictly outside episodes of overeating, rated 1 or 2	Yes	No
Induced vomiting (once/week)	Yes	No
Used laxatives (once/week)	Yes	No
Used diuretics (once/week)	Yes	No
Solitary exercising (rated 4, 5, or 6)	Yes	No
Anything else to control shape or weight	Yes	No

**20. ABSTINENCE FROM WEIGHT-CONTROL BEHAVIOR (FR)**

(Only ask this if "yes" to one or more of the items above)

*"Over the past three months has there been a period of three or more weeks when you have not (list compensatory behaviors)"*

\_\_\_\_\_

**21. DISSATISFACTION WITH WEIGHT (SR)**

*"Over the past four weeks have you been dissatisfied with your weight?"*

\_\_\_\_\_

**22. DESIRE TO LOSE WEIGHT (FR)**

*"Over the past four weeks have you wanted to lose weight?"*

\_\_\_\_\_

*"Have you had a strong desire to lose weight?"*

**23. DESIRED WEIGHT**

(pounds) \_\_\_\_\_

*"What weight would you like to be?"*

000 = not interested in weight

666 = primarily interested in shape, but some concern about weight

777 = no specific weight is low enough

**24. REACTION TO PRESCRIBED WEIGHING (SR)**

*"How would you feel if you were asked to weigh yourself once each week for the next four weeks?"*

*"How often do you weigh yourself now?"*

**25. DISSATISFACTION WITH SHAPE (SR)**

*"Over the past four weeks, have you been dissatisfied with your shape?"*

**26. PREOCCUPATION WITH SHAPE OR WEIGHT (FR)**

*"Over the past four weeks have you spent much time thinking about your shape or weight?"*

*"Has thinking about your shape or weight interfered with your ability to concentrate? How about concentrating on things you are interested in, for example, reading, watching television, or following a conversation?"*

**27. IMPORTANCE OF SHAPE (SR)**

*"Over the past four weeks has your shape been important in influencing how you feel about (judge, think, evaluate) yourself as a person?"*

MONTH 1 \_\_\_\_\_

MONTH 2 \_\_\_\_\_

MONTH 3 \_\_\_\_\_

*"If you imagine the things which influence how you feel about (judge, think, evaluate) yourself--such as your performance at work, being a parent, your marriage, how you get along with other people--and put these things in order of importance, where does your shape fit in?"*

If 4, 5, or 6 for each month, rate duration at or above level.

duration (months) \_\_\_\_\_

100 = 5-10 years  
666 = 10+ years

**28. IMPORTANCE OF WEIGHT (SR)**

*"Over the past four weeks has your weight been important in influencing how you feel about (judge, think, evaluate) yourself as a person?"*

*"If you imagine the things which influence how you feel about (judge, think, evaluate) yourself—such as your performance at work, being a parent, your marriage, how you get along with other people—and put these things in order of importance, where does your weight fit in?"*

MONTH 1 \_\_\_\_\_

MONTH 2 \_\_\_\_\_

MONTH 3 \_\_\_\_\_

If 4, 5, or 6 for each month, rate duration at or above level.

duration (months) \_\_\_\_\_

100 = 5-10 years  
666 = 10+ years

**29. FEAR OF WEIGHT GAIN (FR)**

*(If obviously overweight do not ask parentheses)*

*"Over the past four weeks have you been afraid that you might gain weight (or become fat)? Has this been a definite fear?"*

MONTH 1 \_\_\_\_\_

MONTH 2 \_\_\_\_\_

MONTH 3 \_\_\_\_\_

If 4, 5, or 6 for each month, rate duration at or above level.

duration (months) \_\_\_\_\_

100 = 5-10 years  
666 = 10+ years

**30. DISCOMFORT SEEING BODY (SR)**

*"Over the past four weeks have you felt uncomfortable seeing your body, for example, in the mirror, in shop window reflections, while undressing or taking a bath or shower?"*

\_\_\_\_\_

**31. AVOIDANCE OF EXPOSURE (SR)**

*"Over the past four weeks have you felt uncomfortable about others seeing your body, for example, in communal changing rooms, when swimming, or when wearing clothes that show your shape?"*

\_\_\_\_\_

**32. FEELINGS OF FATNESS (FR)**

(If obviously overweight, do not ask)

*"Over the past four weeks have you felt fat?"*

MONTH 1 \_\_\_\_\_

MONTH 2 \_\_\_\_\_

MONTH 3 \_\_\_\_\_

If 4, 5, or 6 for each month,  
rate duration at or above level.

duration (months) \_\_\_\_\_

100 = 5-10 years

666 = 10+ years

**33. FLAT STOMACH (FR)**

*"Over the past four weeks, have you had a definite desire to have a flat stomach?"*

**34. MAINTAINED LOW WEIGHT**

*"Over the past three months have you been trying to lose weight?"*

If no: *"Have you been trying to make sure that you do not gain weight?"*

0 = no

1 = yes

2 = yes, but not for weight/shape reasons

**35. MENSTRUATION**

*"Have you missed any menstrual periods over the past three months?"*

number had: \_\_\_\_\_  
(past three months)

*"How many periods have you had?"*

Rate 7 for the pill,  
pregnancy, and  
breastfeeding

*"Are you taking an oral contraceptive?"*

**36. HEIGHT IN INCHES**

\_\_\_\_\_ "

**37. WEIGHT IN POUNDS**

\_\_\_\_\_ lbs.



## EDI

## INSTRUCTIONS

This is a scale which measures a variety of attitudes, feelings, and behaviors. Some of the items related to food and eating. Others ask you about your feelings about yourself. *There are no right or wrong answers, so please try very hard to be completely honest in your answers.* Read each question and circle the choice that applies best to you. Please answer each question very carefully. Thank you.

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

- |   |             |
|---|-------------|
| 1. I eat sweets and carbohydrates without feeling nervous.    | A U O S R N |
| 2. I think that my stomach is too big.                        | A U O S R N |
| 3. I wish that I could return to the security of childhood.   | A U O S R N |
| 4. I eat when I am upset.                                     | A U O S R N |
| 5. I stuff myself with food.                                  | A U O S R N |
| 6. I wish that I could be younger.                            | A U O S R N |
| 7. I think about dieting.                                     | A U O S R N |
| 8. I get frightened when my feelings are too strong.          | A U O S R N |
| 9. I think that my thighs are too large.                      | A U O S R N |
| 10. I feel ineffective as a person.                           | A U O S R N |
| 11. I feel extremely guilty after overeating.                 | A U O S R N |
| 12. I think that my stomach is just the right size.           | A U O S R N |
| 13. Only outstanding performance is good enough in my family. | A U O S R N |
| 14. The happiest time in life is when you are a child.        | A U O S R N |
| 15. I am open about my feelings.                              | A U O S R N |
| 16. I am terrified of gaining weight.                         | A U O S R N |
| 17. I trust others.   | A U O S R N |
| 18. I feel alone in the world.                                | A U O S R N |
| 19. I feel satisfied with the shape of my body.               | A U O S R N |
| 20. I feel generally in control of things in my life.         | A U O S R N |
| 21. I get confused about what emotion I am feeling.           | A U O S R N |
| 22. I would rather be an adult than a child.                  | A U O S R N |
| 23. I can communicate with others easily.                     | A U O S R N |
| 24. I wish I were someone else.                               | A U O S R N |
| 25. I exaggerate or magnify the importance of weight.         | A U O S R N |

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

- |   |             |
|---|-------------|
| 26. I can clearly identify what emotion I am feeling.   | A U O S R N |
| 27. I feel inadequate.  | A U O S R N |
| 28. I have gone on eating binges where I felt that I could not stop.                                    | A U O S R N |
| 29. As a child, I tried very hard to avoid disappointing my parents and teachers.                       | A U O S R N |
| 30. I have close relationships  | A U O S R N |
| 31. I like the shape of my buttocks.  | A U O S R N |
| 32. I am preoccupied with the desire to be thinner.   | A U O S R N |
| 33. I don't know what's going on inside me.   | A U O S R N |
| 34. I have trouble expressing my emotions to others.  | A U O S R N |
| 35. The demands of adulthood are too great.   | A U O S R N |
| 36. I hate being less than best at things.  | A U O S R N |
| 37. I feel secure about myself.   | A U O S R N |
| 38. I think about bingeing (over-eating).   | A U O S R N |
| 39. I feel happy that I am not a child any more.  | A U O S R N |
| 40. I get confused as to whether or not I am hungry.  | A U O S R N |
| 41. I have a low opinion of myself.   | A U O S R N |
| 42. I feel that I can achieve my standards.   | A U O S R N |
| 43. My parents have expected excellence of me.  | A U O S R N |
| 44. I worry that my feelings will get out of control.   | A U O S R N |
| 45. I think my hips are too big.  | A U O S R N |
| 46. I eat moderately in front of others and stuff myself when they're gone.                             | A U O S R N |
| 47. I feel bloated after eating a normal meal.  | A U O S R N |
| 48. I feel that people are happiest when they are children.   | A U O S R N |
| 49. If I gain a pound, I worry that I will keep gaining.  | A U O S R N |
| 50. I feel that I am a worthwhile person.   | A U O S R N |
| 51. When I am upset, I don't know if I am sad, frightened, or angry.                                    | A U O S R N |
| 52. I feel that I must do things perfectly or not do them at all.                                       | A U O S R N |
| 53. I have the thought of trying to vomit in order to lose weight.                                      | A U O S R N |
| 54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close). | A U O S R N |
| 55. I think that my thighs are just the right size.   | A U O S R N |

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

- |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 56. I feel empty inside (emotionally).                        | A | U | O | S | R | N |
| 57. I can talk about personal thoughts or feelings.           | A | U | O | S | R | N |
| 58. The best years of your life are when you become an adult. | A | U | O | S | R | N |
| 59. I think that my buttocks are too large.                   | A | U | O | S | R | N |
| 60. I have feelings I can't quite identify.                   | A | U | O | S | R | N |
| 61. I eat or drink in secrecy.                                | A | U | O | S | R | N |
| 62. I think that my hips are just the right size.             | A | U | O | S | R | N |
| 63. I have extremely high goals.                              | A | U | O | S | R | N |
| 64. When I am upset, I worry that I will start eating.        | A | U | O | S | R | N |
| 65. People I really like end up disappointing me.             | A | U | O | S | R | N |
| 66. I am ashamed of my human weaknesses.                      | A | U | O | S | R | N |
| 67. Other people would say that I am emotionally unstable.    | A | U | O | S | R | N |
| 68. I would like to be in total control of my bodily urges.   | A | U | O | S | R | N |
| 69. I feel relaxed in most group situations.                  | A | U | O | S | R | N |
| 70. I say things impulsively that I regret having said.       | A | U | O | S | R | N |
| 71. I go out of my way to experience pleasure.                | A | U | O | S | R | N |
| 72. I have to be careful of my tendency to abuse drugs.       | A | U | O | S | R | N |
| 73. I am outgoing with most people.                           | A | U | O | S | R | N |
| 74. I feel trapped in relationships.                          | A | U | O | S | R | N |
| 75. Self-denial makes me feel stronger spiritually.           | A | U | O | S | R | N |
| 76. People understand my real problems.                       | A | U | O | S | R | N |
| 77. I can't get strange thoughts out of my head.              | A | U | O | S | R | N |
| 78. Eating for pleasure is a sign of moral weakness.          | A | U | O | S | R | N |
| 79. I am prone to outbursts of anger or rage.                 | A | U | O | S | R | N |
| 80. I feel that people give me the credit I deserve.          | A | U | O | S | R | N |
| 81. I have to be careful of my tendency to abuse alcohol.     | A | U | O | S | R | N |
| 82. I believe that relaxing is simply a waste of time.        | A | U | O | S | R | N |
| 83. Others would say that I get irritated easily.             | A | U | O | S | R | N |
| 84. I feel like I am losing out everywhere.                   | A | U | O | S | R | N |
| 85. I experience marked mood shifts.                          | A | U | O | S | R | N |

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

- |   |             |
|---|-------------|
| 86. I am embarrassed by my bodily urges.                  | A U O S R N |
| 87. I would rather spend time by myself than with others. | A U O S R N |
| 88. Suffering makes you a better person.                  | A U O S R N |
| 89. I know that people love me.                           | A U O S R N |
| 90. I feel like I must hurt myself or others.             | A U O S R N |
| 91. I feel that I really know who I am.                   | A U O S R N |

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