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An Examination of Attitudes in Females Identified with an Eating Disorder

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AN EXAMINATION OF ATTITUDES IN FEMALES IDENTIFIED WITH AN EATING DISORDER

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Abstract

The main purpose of this study was to investigate attitude demonstrated by participants in an outpatient multidimensional group treatment program for eating disorders. The problem concerned clarifying the attitudinal differences between eating disordered and non-eating disordered females after involvement in a time-limited treatment group. Procedural guidelines of the study were described for two groups designated as 5 eating disordered experimental subjects and 29 non-eating disordered control comparison subjects. Both groups completed the Eating Disorder Inventory, a 64-item self-report inventory which allowed measurement at pretest and posttest intervals. Data from this measure were collected before the beginning of treatment and again at expiration of the treatment sessions. An overview of the data in comparison with the Eating Disorder Inventory normative clinical samples noted relatively consistent profiles for experimental and control subjects. Results of a differential data analysis of change scores from pretest to posttest indicated eating disordered females as compared with non-eating disordered females demonstrated significantly more attitudinal preoccupation for thinness, personal expectations of achievement, lack of confidence in recognizing personal

states of hunger and satiety, and sustained more focus on the security of a preadolescent status. Shared attitudinal concerns about overeating, physical size, weight, body image, and feelings of ineffectiveness were demonstrated by both groups. The findings of the study underscored support of previous research for the thinness dimension where improvement for eating disordered individuals was related to treatment involvement.

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CHAPTER I

INTRODUCTION

The contribution of biological, social, personality, cultural, and cognitive variables, their subfactored components, and the various combinations have been proposed as partial evidence to account for the ongoing manifestation of eating disorders such as anorexia nervosa, bulimia nervosa, and compulsive overeating (Caffary, 1987; Shisslak, Crago, Neal & Swain, 1987; Katzman & Wolchik, 1984; Garfinkel & Garner, 1983; Hawkins & Clement, 1984). A cardinal feature of eating disorders has been the attribution of attitudes as the "organized cognitive structures that unite the views of the self with the beliefs about weight" (Vitousek & Hollon, 1990, p. 191).

Traditional contributions to theory formulation have included descriptions and explanations for symptom development. In the case of eating disorders, early conceptualizations and diagnostic elaborations by Russell (1970) included reference to a complex set of attitudes to shape and weight in patients with anorexia nervosa. More recent investigations by Slade (1982) and Fremouw and Heyneman (1984) offered expanded evidence for attitude and proposed a functional analysis of anorexia nervosa and bulimia nervosa where cognitive characteristics were conceived as important and critical

to the progression of the disorder. Additionally, distorted attitudes, misconceptions, and reasoning errors have been recognized as characteristic of anorexia nervosa (Garner, 1986). These observations have been the basis of Garner's (1986) treatment and strategic focus in working with an eating disorder population. Utilizing Aaron Beck's taxonomy of reasoning errors and consequent interventions, Garner's (1986) treatment approaches have consistently emphasized attitudinal identification and change as an important element for recovery.

On a broader level, the symptom profile of individuals with eating disorders has been refined in the Revised Standards of the Diagnostic and Statistical Manual of the American Psychological Association (1987). Definitions of anorexia nervosa and bulimia nervosa (see Appendix A & B) require an overview of symptoms and an understanding of key issues important in the appearance and maintenance of either disorder. In both definitions, emphasis was placed not only upon obsessive compulsive behaviors such as excessive dieting, vomiting, purging, excessive exercising, laxative abuse as revisionary measures following eating and or binge-eating episodes, but emphasis was upon described attitudes for each profile. The latter instance included the following: 1) "intense fear of gaining

weight or becoming fat" and 2)"persistent overconcern with body shape and weight" (American Psychological Association, 1987, pp. 65-69).

In view of the refined profile, Fairburn and Garner (1988) pointed out that a deficit in the current diagnostic criteria (American Psychological Association, 1987) included no stated guidelines for clear identification of the extreme attitudinal concerns expressed by eating disordered individuals about body shape and weight. It was contended that current assessment devices were usually in a self-report format and constituted partial identification along with semi-structured interviews. All these measures included concerns regarding response bias, sensitivity, and truth in reporting. With specific reference to attitudes, Fairburn and Garner (1988) questioned whether the extreme concerns demonstrated by eating disordered individuals particularly in the areas of shape and weight could be adequately evaluated in "all facets of complex beliefs and values of this type" (p. 49). The authors' response to this deficit was the development in 1987 of another self-report measure, the Eating Disorder Examination-Eleventh Edition to provide a more objective measure to the "personal importance attached to shape and weight" (p. 49).

In the current literature, however, identified attitudes, cognitive structures, self-schematas or other correlated terminology were not unique to eating disordered populations. Studies by Vitousek and Hollon (1990), Segal (1988), Markus, Hamill, and Sentis (1987), Ruderman (1986), Guidano and Liotti (1983), and Markus (1977) have indicated that individuals with eating disorders are sometimes more likely than non-eating disordered individuals to possess attitudes that are negative self-evaluations, to enumerate extreme and harsh identifications of themselves, and to endorse irrational beliefs and depressed schematas about themselves and the world.

In another respect, a preponderance of the literature did report on the importance that attitudes play in regard to maintenance and persistence of eating disorder symptomatology (Phelan, 1987; Garner & Bemis, 1982; Turk & Salovey, 1985; Striegel-Moore, McAvay & Rodin, 1986; Darby, Garfinkel, Garner, & Coscina, 1983). Attitudes were thus an important focus since they not only represented a consistent internal description to external stimuli but also reflected frequent cognitive generalizations about the self and similarity to self-schematas (Markus, 1977).

Purpose of the Study

The current study was undertaken to investigate the attitude within a multidimensional group treatment program for eating disordered individuals. The treatment program used a format that incorporated didactic material and cognitive-behavioral strategies within a context of group support.

The objectives needed to accomplish the purposes of this investigation were the following:

1. To obtain a baseline or preassessment of attitudinal concern across the subject population.

2. To demonstrate the six phases of the treatment program on the select population.

3. To obtain a second or postassessment of attitudinal concern across the subject population as manifested in identified areas and described by the dimensions on the criterion measure.

Statement of the Problem

The general problem was concerned with the attitudes of eating disordered females who participated in an outpatient treatment program. Does involvement in a time-limited treatment program affect attitudes of individuals identified with an eating disorder?

In view of the general concern, the study was undertaken to answer the following specific question:

Will there be a difference in attitude of females identified with an eating disorder and involved in a time-limited treatment program as compared to attitudes of non-eating disordered females?

Operational Definition

The following definition was given operational emphasis. It served to both facilitate the goals of the study and to support the foundation of concerns identified in the literature as a salient characteristic of dysfunctional eating problems.

Attitude

Attitude refers to an "individual's self-descriptions" regarding predispositions to react consistently in a given manner either positively or negatively to certain concepts or constructs and to other identifiable aspects within one's environment (Bem, 1968, p. 197). This statement was considered representative of three components described by Greenwald (1968) as composed of "affects (or emotions), cognitions (or beliefs or opinions), and action tendencies" (p. 363). The utilization of this definition combined the expansive meanings described within the available research on attitude, one or more of its components, or correlated terms.

Research Hypothesis

The problem of the study generated the following hypothesis: Females identified as eating disordered will show significant difference in attitudes as compared with non-eating disordered females after involvement in a time-limited treatment program as measured by pre- and postassessment on the Eating Disorder Inventory.

Implications of the Study

The study recognized the influence of the following aspects as contributing to subsequent results. An elaborated description of the treatment program considered salient characteristics of eating disorders and prioritized their presentation. The presentation and subject involvement were conceived as interrupting behavioral extremes of dysfunctional eating patterns while optimizing cognitive skills about individual problems. The thematic emphasis within each treatment phase was intended to elicit subject expansion on six selected areas considered problematic for eating disordered individuals. The alloted time for each thematic focus was intended to augment subject awareness of the wide paramenters and the relationship to their own eating problems. The significant difference in attitude of eating

disordered subjects would provide evidence for involvement in a time-limited treatment program on an outpatient basis. The data collected contributed to the existing body of knowledge as further confirmation that attitudes of eating disordered females are different in identified areas.

CHAPTER II

LITERATURE REVIEW

Introduction

A review of the literature on attitude was investigated in regard to persons with eating disorders. Relevant research was reported in the following manner: 1) derivation of the attitude concept, 2) attitudes as references and characteristics, 3) eating disorders and attitudinal self-definitions, 4) distortion and the response of cognitive-behavioral models, and 5) attitudinal concern in related population studies. A summary of the literature was given as a generalized overview of studies reviewed.

Derivation of the Attitude Concept

The concept of attitude has both a distinctive and "elastic" applicability in the history of its use (Allport, 1959, p. 43). The distinctive quality of the term attitude dates back to its availability well before its use in scientific and research communities. The elastic quality of the term is evident in its applicability to a range extending from individual to group aspects. Allport (1959) believed that an attitude could "combine both instinct and habit in any proportion" (p. 43). This was viewed as applicable to either the "dispositions of single isolated individuals

or to broad patterns of culture (common attitudes)" (p. 43). There was, therefore, a practical and common usage before the term was given several operational definitions for research purposes.

The Latin derivation of the term attitude signified "fitness" or "adaptedness" conveying a "by-form aptitude" meaning "subjective or mental state of preparation for action" (p. 43). The utilization of attitude within the fine art community signified a different meaning which described the external and visible posture of stationary objects or figures. This latter meaning referred to "motor attitude" much different from the former meaning which was referred to as "mental attitude" (p. 43).

As far back as the nineteenth century, Allport (1935), in reviewing the origins of attitude as a concept, cited a study which described the differential responses to a stimulus. Directions were given to a subject to press a key at the onset of a stimulus while another subject was directed to concentrate on the incoming stimulus. Their responses were subsequently described as their task attitude. Similarly, in early American psychology, the study of attitudes began with investigations into individual differences. The term attitude was considered useful since the scientific community designated it as a

concept to name and explain persistent behaviors of individuals across different situations (Kiesler, Collins & Miller, 1969).

A review of the concept of attitude in contemporary psychology was complicated by the use of correlative terminology or variations of the term attitude. From a psychological standpoint, attitude referred to a mental or psychological set but alternate terms were adopted that conveyed similar yet expanded meanings of the basic concept of psychological set. A brief but definitional review of alternate terms was cited by Johada and Warren (1968). They included:

1. Belief referred to an attitude incorporating "a large amount of cognitive structuring." A "stimulus object of a belief is a relatively complex event" where the subject might have "differentiated the object into smaller and smaller sub-regions." "Belief connotates an attitude which involves or identifies the subject deeply with the object. The individual uses his belief as a basis for predicting what will happen in the future" (p. 26).

2. Bias referred to what was "bent or oblique." "Bias may also be considered as weak prejudices that do not carry conviction or great potency." A biased attitude "is a perception of a stimulus object from a slightly warped, inaccurate position" (pp. 26-27).

3. Doctrine referred to " that which is taught." Doctrines were "teachings, elaborate stimulus objects toward which individuals have attitudes." Additionally, a doctrine "is a highly involved logical system concerning some complex phenomenon to which an individual subscribes or objects" (p. 27).

4. Faith referred to a "complex form of attitude involving deep affective meaning." It was a "system of attitudes that describes a specific and fundamental belief in a person or principle or conception which may or may not be shared by others." Faith was related to belief in that "it is a prediction, it tells what will happen in the future." Faith was related to ideology in that "it may be an elaborate cognitive system which purports to explain some phenomenon" (p. 27).

5. Ideology referred to "an elaborate cognitive system which may be used to justify certain forms of behavior--or is a means of rationalization." From an individual standpoint, ideology "involves personality, structure and content." A more specific reference to one's social ideology referred to both a "self perception and perception of society" which represented a "generalized, global attitude" (pp. 27-28).

6. Judgment referred to a comparative process of "stimulus objects" or "cognitive events." Judgment was a type of attitude when it incorporated "ego-involvement,

no affective property, and no 'barrier' or 'facilitation' as part of its meaning. (pp. 28-29)

7. Opinion referred to "a tentative perceptual set towards points of view (cognitive organizations) or stimulus objects." Opinions "represent cognitive summaries" where once emerged, "the individual may then 'stand back' and appraise it." Three popular meanings of opinion were (a) that it "may refer to the individual's tentative set itself;" (b) that it "may refer to a point of view or set in the abstract;" and (c) that it "may have a collective meaning" where the term "means an attitudinal concensus" (p. 29).

8. Value referred to two uses in contemporary psychology. "First, a value is an attitude which is dominated by the individual's interpretation of the stimulus object's worth." A value system was secondly, "an individual's overall life aspiration" and "gives direction to his behavior." Finally, a value was "an elaborate and articulated organization of attitudes" (pp. 29-31).

Another alternate attitudinal term was schema, described by Ellis and Hunt (1989). It referred to a "large body of organized information an individual has about various concepts, events, or knowledge domains" (p. 190). Of note with the term schema was the characteristics of self-schemas which were essentially

"generalizations about the self derived from past experience that organize and guide the process of self-related information contained in the individual's social experience" (Markus, 1977, p. 64).

Attitudes as References and Characteristics

A review of the literature suggested the crucial role of attitude in the development and maintenance of eating related problems (Stoylen & Laberg, 1990; Laessle, Kittl, Fichter & Pirke, 1988; Wilson, Rossiter, Kleifield & Lindholm, 1986; Fremouw & Heyneman, 1983; and Fairburn, 1981). A preliminary to many of these studies was the presumed connection between behavior and attitude which was given early experimental focus.

Evidence for an individual's own overt behavior as the source of their attitudes was given support by Bem (1965, 1966). Early experimental studies (Bem, 1965) concluded that attitudes functioned as dependent variables through the mechanism of description. A finding in one of these studies revealed that the extent that internal stimuli are not predominate in a situation, there was a functional connection between an individual's behavior and attitude. Illustration of this conclusion was derived from experimental results where subjects were trained to tell lies or the truth in the presence of one or two colored lights. Subjects were

then required to state attitudes they did not agree with and a colored light would illuminate as each statement was made. The results supported the hypothesis that if attitudes stemmed from an individual's observation of their behavior plus the stimulus context of its occurrence, then individuals would endorse attitude statements uttered in the presence of a truth light significantly more than statements made in the presence of a lie light (Bem, 1965).

In 1968, Bem elaborated on attitude as having a "cognitive component" and a "behavioral component" (p. 197). The cognitive aspect denoted self-descriptive belief statements. The behavioral aspect denoted the active response to the belief statements. Bem (1968) further indicated that an individual's attitude was made up of responses to their own self-observations in the cognitive and behavioral realms. It was suggested that the internal stimulus control of an individual's self-descriptions could be overridden and given external sources of control, thereby, changing attitudes (Bem, 1968).

Along similar lines, earlier investigations by Schachter and Singer (1962) and Valins (1966) focused on evoking self-descriptions. Manipulating situational conditions or cues already within a defined environment produced varying degrees of responses, emotional states,

and thus different and changed attitudes. Research with subjects with manipulated external cues revealed that the ranges of emotional states evoked were a function of two processes: awareness and identification. An awareness of the emotional state was made from a subject's internal stimuli, however, the identification of which emotional state was made on the basis of external cues in the environment (Schachter & Singer, 1962).

Some twenty years later, in a brief but descriptive article Riebel (1985), noted "the existence of limiting mental patterns" (p. 42). She indicated that the psychological literature contained an ongoing emphasis on limiting mental attitudes that were associated with problematic functioning. Seven described attitudinally related patterns were delineated. These included the oedipal phase, personal constructs, scripts, early decisions, irrational beliefs, second order reality, and deep structures. Identified attitudes of eating disordered persons included a "hyperattunement to criticism, and their simultaneous inability to take in praise or to acknowledge success" (p. 45). Additionally, the maintenance of certain attitudes occurred as a result of no examination even in view of contrary evidence.

Eating Disorders and Attitudinal Self-Definitions

With respect to eating disordered individuals, an all-consuming attitude of weight consciousness overrides the individual's physical and psychological well-being. A cognitive conceptualization of eating disorders was defined in the literature as built upon the prominence of dysfunctional cognitions and values about weight and food concerns (Fremouw & Heyneman, 1983). Individuals diagnosed as bulimic were described as displaying a distinguishable cognitive style or attitude within the following areas: Self-evaluations were more negative following nonsuccessful experiences and overall assessments tended toward extreme ratings. The latter incidence of attitudes described as extreme self-evaluations was not specific to individuals diagnosed as bulimic. Similar ratings were noted in a general population poll (Seim & Fiola, 1990) and a select population survey (Buvat-Herbaut et al., 1983).

A random survey that had some statistical generalizability was conducted by Seim and Fiola (1990). In comparing attitudes of men and women toward food and dieting, the authors found that a socio-cultural emphasis on female thinness was indicated in the results. In keeping with the cultural focus, women's attitudes toward overweight conditions had a moderate to strong effect on their self-esteem. In comparison

with men, women thought about overeating and were twice as likely to experience guilt. The results further indicated five times as many women were dissatisfied with their physical weight and body image than men.

An investigation by Buvat-Herbaut et al. (1983) found frequent and more intense preoccupation displayed by anorexic subjects in comparison with normal weight adolescent subjects. Results of a questionnaire confirmed more exacerbated attitudes in regard to weight gain, problems related to body size, eating behaviors, and body image concept for anorexic subjects than for control subjects. Although normal weight adolescents shared similar concerns, the anorexic subjects by their responses indicated stronger personal importance attached to their attitudes.

Eating related attitudes were sometimes described in the literature as abnormal, rigid, and pathognomic for the various eating disorders. Characteristic attitudes were broadly separated into two types: distortion and disparagement. In regard to both types, Davis (1986) gave extensive elaboration. Distortion in attitude was the inability to accurately perceive one's size. Disparagement or dissatisfaction in attitude was related to affect or cognition and was associated with beliefs about one's body. Both types

of attitudes were described as crystallized into cognitive schemata which were hypervalent and ladened with such affect they controlled all aspects of the eating disordered individual's general functioning.

Further detail of distortion and disparagement was given in two breakdowns (Davis, 1986). The first breakdown was a consistent finding in the literature where clients who evidence distortion (i.e. body size overestimation) have a poor outcome. Davis (1986) indicated that this was likely because body image distortion was associated with aspects of a more serious eating problem as the presence of self-induced vomiting, poor response to inpatient treatment, and greater psychopathology. The second breakdown, with reference to disparagement, was a concept "responsible for the initiation and perpetuation of the extreme weight control behaviors which all eating disorder clients assiduously pursue" (p. 33).

More specific elaboration of attitude disparagement was given in earlier reports by Stunkard and Burt (1967) and Stunkard and Mendelson (1967) who described their interviews with obese subjects exposed to their mirror images. Also cited by Davis (1986), these studies defined disparagement based upon reported emotions where obese subjects felt their bodies were "grotesque and loathsome and that others view it with

hostility and contempt" (p. 33).

Davis (1986) contended that neither the distortion nor the disparagement concepts was "unique to eating disorder clients" (p. 33). The delineation of attitudes was acknowledged as relevant for evaluative purposes since eating disorders has appeared to be "ubiquitous among North American women because of the socio-cultural pressures exerted upon them to achieve an aesthetic ideal slenderness" (p. 33).

The recognition of distorted attitudes was given added credibility by Garner (1986) who suggested they were characteristic of the eating disorders. Distorted attitudes were consistently identified as descriptive of anorexia nervosa and bulimia nervosa. The tendency for eating disorder individuals to construe themselves in extremes was also characteristic in some studies (Hall & Brown, 1983; Brownell & Foreyt, 1986). This tendency culminated in a distorted and narrow attitudinal set as problem eaters equated the "meaningfulness of 'self'" in terms of a dichotomous description of a "thin-fat" construction (Garner, 1986, p. 310).

The dichotomous nature of attitudes toward body weight have a parallel description in terms of distorted body image. Studies conducted by Markus, Hamill and Sentis (1987), Leon et al. (1985), Laessle et al. (1988). and Garfinkel and Garner (1982) described the influence

of attitudinal variables on the subjective experience of one's body image and eating disorder symptoms. Bauer and Anderson (1989) described a number of negative thoughts and distorted attitudes that women have in regard to their bodies and bodily functions. Johnson and Holloway (1988) revealed that an attitude of perfectionism was pervasive in terms of the distorted perception eating disorder individuals maintained in regard to physical proportions. The origination of negative attitudes toward one's body image was addressed by Debs, Wooley, Harkness-Kling and Wooley (1983). It was concluded that both the mother's critical evaluation of the daughter's body and the father's negative messages about physical appearance could be damaging and contributory to the daughter's subsequent negative attitude.

The existence of distorted attitudes and behaviors with eating disorder populations was not restricted to food, weight, and body image but extended to the pursuit of achievement in sports, career, and scholastic concerns (Garner, 1986). Eating disorder individuals were described by Garner (1986) as using "dichotomous reasoning" (p. 311). They assessed themselves more "harshly and in extreme terms but view others realistically" (p. 311). Distorted or rigidly defined attitudes were illustrated by the belief that

a physical attribute like weight was the only "frame of reference for inferring self-worth" (p. 312). Defined attitudes were also illustrated by individuals reporting a "reciprocal belief" despite evidence to the contrary that "fatness is a clear indication of incompetence" (p. 312).

In a comparison study (Hartley, 1989) of body size estimates with real size measurements, data were obtained from male and female anorexics and college student control subjects. A clear subjective and objective relationship between identified and interrelated areas was confirmed. Three areas were described: (a) attitudes toward the body, (b) estimates of body size, and (c) attitudes toward the self. Hartley (1989) indicated the anorexic responses incorporated a significantly higher perceptual error than the responses from the college students. Proposed recovery for the anorexic subjects included emphasis on improvement in all three areas.

More general studies (Cash, Cash, & Butters, 1983; Lerner, Orlos, & Knapp, 1976; Rosen & Ross, 1968; and Noles, Cash, & Winstead, 1985) involving clinical and nonclinical samples of both male and female subjects who perceived themselves as physically unattractive, reported data which indicated negative attitudes toward their physical body. In several instances, research

findings found corresponding issues of social anxieties and inhibitions, poor self-esteem, sexual difficulties, and depressive episodes.

Distortion and the Response of Cognitive-Behavioral Models

It was implied from the literature that particular distorted attitudes about weight and shape led to the development of cognitive-behavioral treatment modalities. The utilization of a cognitive premise was originally based upon the work of Beck and his colleagues (Beck, Rush, Show, & Emery, 1979. Behavioral models (Fishbein, 1967; Fairburn, 1981) were implicated not only in inducing but contributing to the description of how changes in attitudes take place.

The effectiveness of the cognitive-behavioral approach has summarized eating related attitudes as primary variables for remediation. Studies by Fairburn (1981, 1985), White and Boskind-White (1984), Orleans and Barnett (1984), and Hawkins and Clements (1984) described strategies and summarized techniques derived from a cognitive-behavioral basis. These investigations invariably reported goals related to the disruption of extreme attitudinal preoccupation. Garner (1986) detailed several areas for these goals. Two significant areas of treatment focus were: (a) the "gradual

exposure and attitude change in response to forbidden foods," and (b) "challenging dysfunctional attitudes related to body shape" (p. 319). Other areas listed by Garner (1986) were information and education, self-control, self-monitoring, stimulus control and developing or strengthening social skills.

The accumulation or set of attitudes that an individual has was explored in a classic study by Fishbein (1967). Using a behavioral model for attitude formation, Fishbein (1967) contended that if beliefs were the cognitive components of attitude, they would, therefore, serve as a cognitive base for attitudinal description. Much later, Fairburn (1981) delineated a cognitive-behavioral treatment model. The prime features of this model stressed the patient's attitude's regarding self-imposed dietary restrictions as counter-measures to binge eating. The behavioral emphasis of Fairburn's (1981) model focused upon reducing the consequences or behavioral correlates of stringent attitudes. A benefit of using a behavioral model in studies on attitudes was its descriptive features for detailing changes in attitude, especially answering questions of when, and under what conditions underlying beliefs are changed (Bem, 1968).

Current support for the use of a cognitive focus was given by Vitousek and Hollon (1990). If attitudes

were correlated to self variables, then the self-schemas elaborated in the framework by Vitousek and Hollon (1990) would appear to warrant extending further research on cognitive-behavioral models. In the researchers' work, three postulates were described to support a discussion on strategies for assessing the presence and operation of self-schemata:

1. Eating-disordered individuals develop organized cognitive structures (schemata) around the issues of weight and its implications for the self that influence their perceptions, thoughts, affect, and behavior.

2. The operation of these schemata can help to account for the persistence of eating-disorder symptomatology.

3. Schematic principles may also be useful in understanding the 'choice' of eating-disorder symptomatology, by helping to explain why these pathological patterns are often viewed by affected individuals as serving a valued function. (p. 192)

Vitousek and Hollon (1990) confirmed that postulates one and two acknowledged the existence of organized structures and were proported to "influence information processing" in regard to the following classes of schemata: "self-schemata, weight-related schema, and weight-related self-schemata" (p. 197).

The third postulate acknowledged that "given characteristic self-schemata (about personal worth, asceticism, perfectionism, maturity, etc.) and given characteristic weight-related schemata (about the private and public implications of thinness and fatness), linkage between these elements becomes a logical if not inevitable development for the future anorexic or bulimic" (p. 197).

Attitudinal Concern in Related Population Studies

Investigative attention on attitudes of eating disordered individuals included an evaluative focus. An array of studies past and present (Franzoi & Shield, 1984; Ben-Tovim & Walker, 1991; Mable, Balance & Galgan, 1986; Jourard & Secord, 1954; Hooper & Garner, 1986; Salmons, Lewis, Rogers, Gatherer & Booth, 1988; Hall & Brown, 1983) employed various instruments for assessing attitudes. At present the confidence with which any specific conclusion can be stated are tentative if not limited.

In a review of past and contemporary measures for attitudes, Ben-Tovim and Walker (1991) reported that assessment of clinical and nonclinical populations was "premature" (p. 164). Conclusive statements on any differential descriptions was not currently indicated since "considerable overlap appeared to exist between

patients and nonclinical populations and given the lack of clarity about what constituted the normal range of attitudes toward the body" (p. 164).

Flinders Medical Center (1991) reviewed a range of female subject's attitudes toward their bodies as well as the applicability of four measuring strategies (self-report questionnaires, projective tests, silhouette choices, and interview assessments) to an eating disordered population. The study reported no conclusions could be substantiated. There were, however, references to relevant studies which had indicated that self-esteem of female subjects was strongly correlated to lower body satisfaction.

In an overview of studies focused on body image distortion, Cash and Pruzinsky (1990) used the term "size-estimation accuracy" (p. 23). Two types of measurements that were employed for the assessment of size-estimation were the body part and distorting image (whole body) procedures. Cash and Pruzinsky (1990) stated that "size overestimation is not specific to the anorexic population" (p. 23). Studies by Cash and Brown (1987), and Thompson and Thompson (1986) were cited as evidence pointing toward a wider reference population.

More and vigorous claims were directed beyond the confines of attitudes toward body-weight satisfaction

to assess other attitudes maintained by eating disordered individuals. The generalization to other cultures was highlighted in a study by Dolan, Lacey and Evans (1990). The researchers surveyed three ethnic groups which included Caucasian, Asian British, and Afro-Caribbean female subjects. It was found that Asian females had significantly more disordered eating attitudes than Caucasian subjects. In turn, Caucasian subjects evidenced more positive correlations between disordered eating attitudes and feelings of anxiety and depression. A similarity of concerns was noted for all three groups. For both the Afro-Caribbean and Asian subjects the data indicated that ethnic differences existed in the relationship between mood and feelings about eating, weight, and shape.

With regard to specific but unusual population demographic characteristics, recent studies indicated the identification of abnormal attitudes. In reviewing the significance of attitudes, coping styles, and irrational beliefs, Butterfield and Leclair (1988) found trends within three groups described as drug abusers, normal controls, and bulimic subjects. Both the drug abusers and bulimic subjects shared a negative attitude about the world and the future. The bulimic group was found to place considerable importance on another's approval, the denigration of themselves, and

were under much self-imposed pressure and chronic tension. Butterfield and Leclair (1988) contended that the irrational attitudes of the bulimic group were probably contributory to their experience of chronic tension states.

Working with borderline personality disorder and bulimia, Johnson, Tobin and Dennis (1990) evaluated eating attitudes, behaviors, weight history, and psychiatric symptoms. A comparison group of nonborderline subjects with bulimia indicated that the former group were more disturbed on several dimensions including general psychiatric symptoms. Follow-up examination a year later revealed that borderline subjects continued in their demonstration of disturbed attitudinal and behavioral characteristics at significant levels.

A complex study by Hall and Brown (1983) focused on assessing a familial pattern of attitudinal responses toward sickness, arguments, tensions, social isolation, thinness, growing up, and being grown up. Anorexic patients and their mothers and a control-comparison group of nonpatient school girls and their mothers revealed that neither group misjudged each other in an opinion rating. The anorexic daughters and mothers tended to rate sickness, arguments and tension more favorably than did the nonpatient daughters and mothers.

The anorexic group also tended to rate thinness and social isolation less favorably than did the nonpatients. The researchers noted that within group differences between mother and daughter revealed the most significant difference in attitude.

Summary

This chapter reviewed early and contemporary research on attitudes and eating disordered individuals. Subsections of this review presented a brief focus on the concept of attitude, its derivations and other correlated terminology that was used in a similar and referential manner. Studies were presented where attitude was highlighted in the development and maintenance of eating related problems. A breakdown of attitude was described by distortion and disparagement. The review included a somewhat longer section on attitudinal distortion. The utilization of cognitive-behavioral models was described as significant in addressing the interruption of dysfunctional attitudes. Evidence was reviewed on distortion that indicated it was a characteristic aspect of individuals who maintained core symptomatology of eating disorders. Finally, studies were presented that focused on evaluating attitudes in different contexts and where the assessment and generalization of evidence was still inconclusive. Other studies were cited where assessed

attitudes were delineated through various types of population characteristics.

CHAPTER III

METHOD

Introduction

A research methodology suitable to the investigation of the hypothesis of the study was selected which would accurately represent and measure the data collected. A description of elements necessary to the application of the methodology was elaborated under the following headings: 1) subjects, 2) instrumentation, 3) procedures, and 3) statistical treatment.

Subjects

The study comprised two groups of adult females totaling 34 subjects: 5 eating disordered experimental subjects and 29 non-eating disordered control comparison subjects. Characteristics of the subject population are reflected in Table 1. The eating disordered experimental subjects ranged in age from 19 to 46 years ($\underline{M}$ = 30.40), height ranged from 63 to 68 inches ($\underline{M}$ = 65.40), and current weight ranged from 80 to 280 pounds ($\underline{M}$ = 155.20). The non-eating disordered control subjects ranged in age from 18 to 44 years ($\underline{M}$ = 27.62), height ranged from 59 to 69 inches ($\underline{M}$ = 64.92), and current weight ranged from 110 to 200 pounds ($\underline{M}$ = 139.69).

The educational level and professional status of

Table 1

Demographic Characteristics of Eating Disordered Experimental and Non-eating Disordered Control Subjects

	Group					
Variable	Experimentals[a]			Controls[b]		
	X	SD	Range	X	SD	Range
Age	30.40	10.62	19-46	27.62	8.08	18-44
Height	65.40	1.82	63-68	64.62	2.64	59-69
Current Weight	155.20	87.79	80-280	139.69	21.33	110-200
Maximum Hi Weight	169.80	75.73	105-280	158.59	24.58	123-220
Minimum Lo Weight	103.40	35.48	55-145	123.38	12.98	98-150
Age Wt. Problems Began	20.50	3.00	17-23	19.68	5.25	13-30
Ideal Weight	125.00	23.71	95-155	126.76	11.13	105-150

[a] $n = 5$. [b] $n = 29$.

the subjects were as follows: In the experimental group, 2 (40%) had college degrees, 1 (20%) was an undergraduate student, and 2 (40%) had completed high school. Participants were engaged in various jobs ranging from housewife, teacher, reservationist to license collector. In the control group, 10 (34.5%) had college degrees, 10 (34.5%) were undergraduate students, 1 (3%) had completed some college, 5 (17.2%) had business or trade school training, and 3 (10.3%) had completed high school. Participants were engaged in various jobs ranging from housewife, dental assistant, teacher, speech pathologist to veterinary intern.

The experimental subjects were females who sought assistance on an outpatient basis for problematic concerns with food and body weight. Participation in the study was voluntary and individuals were included in the sample if their concerns met the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised, hereafter referred to as DSM-III-R (American Psychiatric Association, 1987) criteria for anorexia nervosa and or bulimia nervosa. Three individuals acknowledged prior inpatient status less than a year before their admission to the treatment program. The stage of their involvement with the eating disorder was not considered an exclusionary variable. The

experimental group originally totaled six members but was reduced to five during the initial phase of the treatment. Experimental subjects were given a written summary confirming their consent and stating the anonymity and confidentiality of their involvement in the study (see Appendix C).

The control comparison subjects were female respondents from paid and free advertisements in two local papers and from bulletins (see Appendix D) posted within three universities, four supermarkets, and four area churches. Volunteer respondents were contacted by phone after they initiated a call or returned a postcard declaring their interest in participating. During a semi-structured telephone interview, if respondents reported no eating or weight-related hospitalization, medical intervention, treatment, or eating disorder history, they were considered eligible for the study. Final acceptance into the comparison group was if respondents did not meet the DSM-III-R criteria for anorexia nervosa or bulimia nervosa. In addition, respondents were briefed on the procedures and duration of the study. A follow-up letter (see Appendix E) detailing the phone interview was sent along with instructions to complete a consent to participate form, and subject characteristic form (see Appendix F) and to return the filled out forms in an

enclosed stamped-addressed envelope to the investigator. Of the 37 respondents who originally indicated interest in participation, 29 returned the subject characteristic and consent forms.

Instrumentation

The evaluation of the study hypothesis included the use of the Eating Disorder Inventory. A description of this instrument was given along with its statistical characteristics.

The Eating Disorder Inventory (EDI) developed by Garner, Olmsted, and Polivy (1983) is a 64-item self-report measure describing attitudinal and behavioral dimensions of basic psychological characteristics related to anorexia nervosa and bulimia nervosa (see Appendix G). Eight subscales comprise the inventory: 1) Drive for Thinness, 2) Bulimia, 3) Body Dissatisfaction, 4) Ineffectiveness, 5) Perfectionism, 6) Interpersonal Distrust, 7) Interoceptive Awareness, and 8) Maturity Fears. In subscales one, two, and three, attitudes and behaviors relative to eating and body shape are emphasized. In subscale four through eight, interpersonal issues and ego-functioning are the focus measures. The manual reported that the clinical utilization of the inventory indicated that resulting scores were not only sensitive to

"differentiation of individuals who may have anorexia nervosa" and bulimia nervosa but those individuals who display "symptoms of a disorder but are less psychologically disturbed" (Garner & Olmsted, 1984, p. 10).

Internal consistency estimates for each subscale were reported by Garner and Olmsted (1984) as yielding a minimum .80 alpha coefficient. The validation of the Eating Disorder Inventory involved a criterion group of eating disordered females with a predominance of anorexic females over bulimic females. A comparison group consisted of female university students who were enrolled in psychology courses. Test items selected were those that significantly differentiated the eating disordered from the college sample and those that were highly correlated with only the subscale to which the items were cataloged. According to Garner, Olmsted, and Polivy (1983) the measure identified college women as weight preoccupied if their scores were at or above the mean.

Reliability and validity data for these two groups was reported in the manual. The total correlation of the eight subscales was .63 (SD = .13). Reliability coefficients for the anorexia nervosa group (n = 155) ranged from .83 to .93 with a standard error of measurement across the subscales ranging from 1.9 to

2.9. Reliability coefficients for the female college students (n = 271) ranged from .72 to .92 with a standard error of measurement from 1.3 to 2.3 across the subscales.

Of concern to the study hypothesis was the total score for each of eight subscales on the Eating Disorder Inventory. These scores were the summation of all item scores for that particular subscale. Observations for each subscale were plotted on a profile form to allow comparison with normative subscale scores for anorexic and female university students. Elevated scores on all subscales were an indication that an individual was possibly vulnerable for an eating disorder.

Procedures

Prior to the beginning of the treatment procedures, pretest information was obtained on the experimental and control comparison groups. The experimental subjects completed pretest two weeks before treatment. After receipt of forms from the initial correspondence to control comparison subjects, pretest was administered. A second mailing was sent with instructions to complete the Eating Disorder Inventory and return the filled out forms in an enclosed stamped-addressed envelope to the investigator (see Appendix H).

Treatment procedures for the experimental group

began after the pretest. For the purposes of the study, treatment was defined through the procedural format of the Well Eating for Life (W.E.L.) program (Tindall and Rohen, 1987). This program (see outline in Appendix I) incorporated an intensive treatment intervention focused on eating pathology and on significant biopsychosocial issues that impede the resumption of regular and more healthy eating patterns. The program utilized education, self-monitoring, goal setting, assertion training, relaxation, cognitive restructuring, nutrition counseling, and family therapy.

Duration of the treatment for the eating disordered experimental group consisted of 24 consecutive sessions, each three and a half hours in length. The structure of the program was described by six modules made up of four sessions. The thematic content of each module was presented in the following sequence: 1) Impact of Eating Disorders, 2) Self-Esteem and Body Image, 3) Negative Thought Patterns, 4) Negative to Positive Thoughts, 5) Stress Management, and 6) Understanding Self and Relating to Others. The theme of each module was introduced in the first two sessions (Behavioral Change Group Therapy), followed through in session three (Family Therapy), and session four (Nutrition Counseling). This sequence was repeated for each of the six themes.

At the end of the six month period, the experimental subjects received posttest on the Eating Disorder Inventory two weeks after the training session. The control comparison subjects were sent a second copy of the Eating Disorder Inventory to be completed and returned to the investigator.

Statistical Treatment

A pretest-posttest control group design was employed for the purposes of the study. Its use permitted dual measurement and near maximum control of the variables of the study. The Mann-Whitney U test was used for data analysis. This test accommodated two independent samples and compared data from the eating disordered experimental group and the non-eating disordered control group. The variables of the study were indicated as follows: the independent variable was the descriptive format of the six month W.E.L. treatment program, and the dependent variable was the Eating Disorder Inventory. Scores on this criterion measure were obtained for both experimental and control groups during a pretest and posttest session. The .05 level was selected to represent significant differences for all analyses of the study.

CHAPTER IV

RESULTS

Introduction

This chapter detailed the outcomes derived in testing the study's hypothesis. The standardized measure used in this study, the Eating Disorder Inventory, served as the criterion and was subjected to statistical analysis. The results of all analyses were reported under the following headings: 1) preliminary data overview, 2) analysis of the data, and 3) summary of the data analysis.

Preliminary Data Overview

Preliminary analysis of pre- and posttest data was reported on the Eating Disorder Inventory. All data on this measure were reported with respect to subscale scores and constituted the indices of concern for the study.

Appendix J described the results of pretest for experimental and control subjects. Figure 1 illustrated graphically the pretest means for experimental and control subjects on eight subscales as compared with clinical norms for an anorexic and female college student sample. Unranked mean responses and standard deviations for experimental subjects reflected higher scores on four subscales in comparison

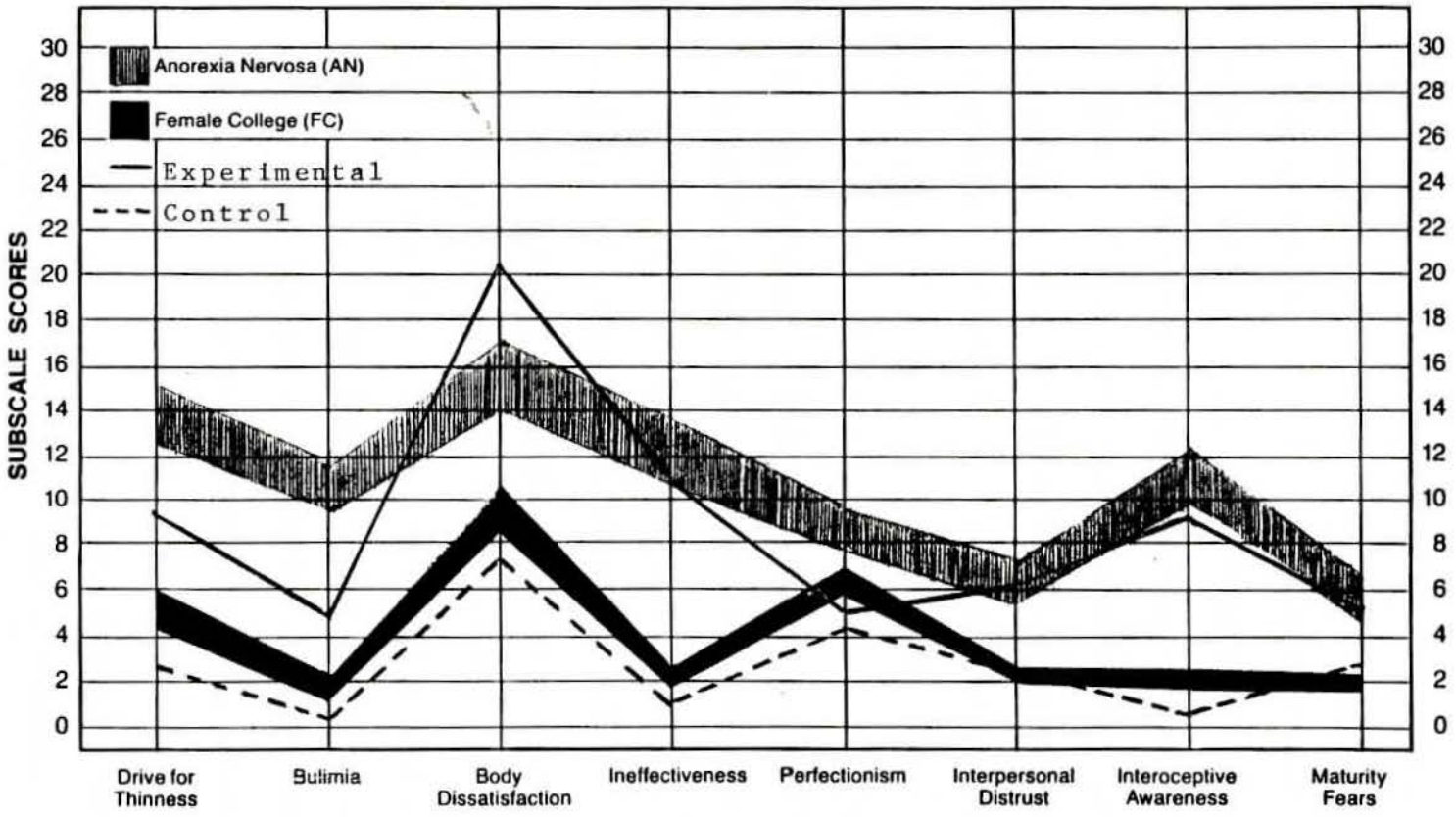

Figure 1. Mean pretest results of experimental and control subjects in comparison with clinical norms for the Eating Disorder Inventory (Garner & Olmsted, 1984)

with normative female college students. On the Body Dissatisfaction subscale, the mean response for experimental subjects was 20.80 (SD = 6.38) and the mean response for female college students was 9.70 (SD = 8.10). On the Ineffectiveness subscale, the mean response for experimental subjects was 11.00 (SD = 6.59) and the mean response for female college students was 2.30 (SD = 3.80). On the Interoceptive Awareness subscale, the mean response for experimental subjects was 9.40 (SD = 7.50) and the mean response for female college students was 2.30 (SD = 3.60). A fourth subscale, Drive for Thinness reflected an elevated mean response score for experimental subjects of 9.20 (SD = 7.98) and a mean response for female college students was 5.10 (SD = 5.50).

In comparison with normative anorexic subjects, experimental subjects reported more attitudinal concern on one subscale of the Eating Disorder Inventory. The Body Dissatisfaction subscale reported the experimental mean response as 1.34 percent higher than the mean response for clinical norms of the anorexic sample (M = 15.50, SD = 7.80). The high score on this subscale was consistent with the normative profile of anorexics whose intense attitudes toward specific body parts are perceived as too large.

Mean responses for control subjects on pretest of

the Eating Disorder Inventory reflected no unusually high scores and were well below clinical norms in most instances. Specific comparison with normative female college students revealed a consistent profile for control subjects as reflected in data for Drive for Thinness, Bulimia, Body Dissatisfaction, Ineffectiveness, Perfectionism, and Interoceptive Awareness subscales. Two subscales did, however, reflect slightly more attitudinal concern in comparison with normative female college students. On the Interpersonal Distrust subscale, the mean response for control subjects was 3.41 (SD = 2.23) compared with the mean response of normative female college students 2.40 (SD = 3.00). On the Maturity Fears subscale, the mean response for control subjects was 2.62 (SD = 1.93) compared with the mean response of normative female college students 2.20 (SD = 2.50).

Appendix K described the results of posttest on the Eating Disorder Inventory for experimental and control subjects. Figure 2 illustrated graphically the posttest means for experimental and control subjects on eight subscales as compared with clinical norms for an anorexic and female college student sample. Unranked mean responses and standard deviations for experimental subjects indicated overall decrements but continued to reflect higher scores on four subscales in comparison

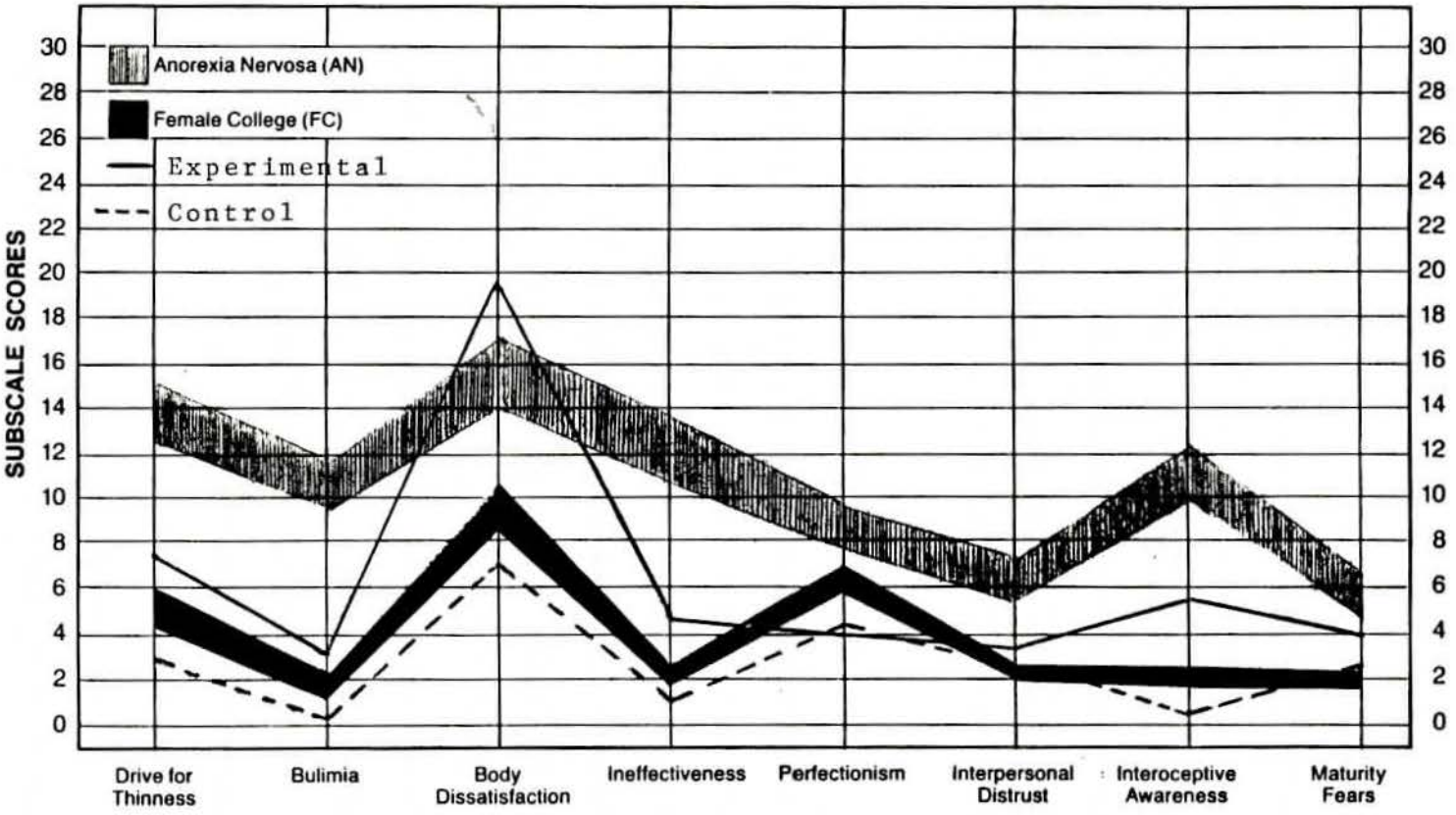

Figure 2. Mean posttest results of experimental and control subjects in comparison with clinical norms for the Eating Disorder Inventory (Garner & Olmsted, 1984).

with normative female college students. Mean response data were reported for experimental subjects on the Body Dissatisfaction subscale ($\underline{M}$ = 19.20, $\underline{SD}$ = 6.44), the Drive for Thinness subscale ($\underline{M}$ = 7.20, $\underline{SD}$ = 6.14), the Interoceptive Awareness subscale ($\underline{M}$ = 5.60, $\underline{SD}$ = 3.65), and the Ineffectiveness subscale ($\underline{M}$ = 4.60, $\underline{SD}$ = 2.07). These results represented expected levels for experimental subjects of 1.97, 1.41, 2.43, and 2 percent above clinical norms for female college students.

Similar comparison with normative anorexic subjects, indicated that experimental subjects continued to report more attitudinal concern on the Body Dissatisfaction subscale. This posttest result for experimental subjects represented nearly 1.23 percent higher mean response than for clinical norms of the anorexic sample ($\underline{M}$ = 15.50, $\underline{SD}$ = 7.80). Again, an elevated mean score on this subscale was consistent with the normative profile of anorexic's intense preoccupation with their bodies.

Interestingly, the Perfectionism subscale reported below norm scores for experimental subjects at pretest ($\underline{M}$ = 5.60, $\underline{SD}$ = 3.13) and posttest ($\underline{M}$ = 4.00, $\underline{SD}$ = 3.24) in comparison with mean scores for female college students ($\underline{M}$ = 6.40, $\underline{SD}$ = 4.30). These findings were contrary to the literature which described expectations

of achievement, and tendencies to perfectionism as attitudes which help precipitate and maintain eating disorders (Garner, 1986, Slade, 1982).

Mean responses for control subjects continued to follow the clinical norms for female college students. Three subscales did, however, reflect a marginal increase from pre- to posttest for control subjects on the Body Dissatisfaction subscale ($\underline{M}$ = 7.14, $\underline{SD}$ = 3.81), the Ineffectiveness subscale ($\underline{M}$ = 1.55, $\underline{SD}$ = 1.55), and the Perfectionism subscale ($\underline{M}$ = 4.69, $\underline{SD}$ = 2.97). Noted increments of 1, 4, and 8 percent mean response for control subjects did not contribute to any deviations from the clinical profile.

Analysis of the Data

Mean gain scores were calculated for both the experimental and the control comparison groups. Since the criterion measure indicated high scores reflected a bias toward attitudes symptomatic of eating disorders and low scores reflected a bias away from those attitudes, the term change score was adopted as more descriptive than the gain score concept. With respect to the posttest on the Eating Disorder Inventory, mean change scores were calculated for the experimental group and the control comparison group. The Mann-Whitney U test was used to analyze the data. The

.05 level of significance was used throughout the analysis.

Table 2 contains a summary of the analysis of change scores. Comparisons on four subscales indicated that the experimental and control groups were significantly different in their attitudinal concerns from pretest to posttest. On the Drive for Thinness subscale, the mean rank for experimental subjects was 9.60 and the mean rank for control subjects was 18.86; the value of U obtained was 33.00 indicating a significant different $p < .05$. On the Perfectionism subscale, the mean rank for experimental subjects was 8.90 and the mean rank for control subjects was 18.98; the value of U obtained was 29.50 indicating a significant difference $p < .05$. On the Interoceptive Awareness subscale, the mean rank for experimental subjects was 9.20 and the mean rank for control subjects was 18.93; the value of U obtained was 31.00 indicating a significant difference $p < .05$. On the Maturity Fears subscale, the mean rank for experimental subjects was 9.60 and the mean rank for control subjects was 18.86; the value of U obtained was 33.00 indicating a significant difference $p < .05$.

Data on the four remaining subscales indicated that the experimental subjects in comparison with control subjects were not significantly different in the

Table 2

Pre- and Posttest Change Scores for Experimentals and Controls on the Eating Disorder Inventory

Variable	Group: Experimentals[a] Mean Rank	Group: Controls[b] Mean Rank	U	P
Drive for Thinness	9.60	18.86	33.00	.0278*
Bulimia	17.20	17.55	71.00	.9277
Body Dissatisfaction	11.50	18.53	42.50	.0788
Ineffectiveness	14.20	18.07	56.00	.3013
Perfectionism	8.90	18.98	29.50	.0228*
Interpersonal Distrust	10.00	18.79	35.00	.0443
Interoceptive Awareness	9.20	18.93	31.00	.0092*
Maturity Fears	9.60	18.86	33.00	.0066*

Note. Values of U corrected for ties in ranks. Since the larger n is greater than 20 in all comparisons, U is distributed approximately normally.

[a] $n = 5$. [b] $n = 29$.

*$p < .05$, two-tailed probability.

change of their attitudinal concerns from pretest to posttest. On the Bulimia subscale, the mean rank for experimental subjects was 17.20 and the mean rank for control subjects was 17.55; the U obtained was not significant. On the Body Dissatisfaction subscale, the mean rank for experimental subjects was 11.50 and the mean rank for control subjects was 18.53; the U obtained was not significant. On the Ineffectiveness subscale, the mean rank for experimental subjects was 14.20 and the mean rank for control subjects was 18.07; the U obtained was not significant. A fourth subscale Interpersonal Distrust reported the mean rank for experimental subjects was 10.00 and the mean rank for control subjects was 18.79; the U obtained was not significiant.

The pattern of the data indicated trends from pre- to posttest. Experimental subjects were more extreme in their attitudinal preferences for thinness, personal expectations of achievement, lack of confidence in recognition of hunger and satiety; and subjects sustained more focus on returning to the security of preadolescent years. All subscales represented areas of focus within the treatment program. The importance of subject attitudes and understanding of health and moderation was emphasized to counter concerns with dietary restraint.

Clinical observations after treatment were confirmed empirically by a decrease in experimental subjects' concerns with achievement, more confidence in identifying emotional states, and less obvious admissions of wanting to resume a childhood status. Of note was evidence reported on the Drive for Thinness subscale which reflected significance from pre- to posttest. Findings on this dimension were somewhat consistent with the investigations by Kennedy and Garfinkel (1989), Steinhausen (1985), Conners, Johnson, and Stuckey (1984) who attributed improvement in Drive for Thinness to involvement in treatment focus.

Parallel elevations on some subscales were consistent for both experimental and control groups from pretest to posttest. This suggested that both eating disordered and non-eating disordered subjects shared concerns about overeating (Bulimia), physical size, weight and body image (Body Dissatisfaction), harbored attitudes of inadequacy and ineffectiveness (Ineffectiveness). The analysis indicated that neither experimentals nor controls were significantly more concerned in these areas.

The data not only reflected differences along specific subscales but in some cases differences large enough to be meaningful. The research hypothesis was that females identified as eating disordered will show

significant difference in attitudes as compared with non-eating disordered females after involvement in a time-limited treatment program as measured by pre- and postassessment on the Eating Disorder Inventory. The differential analysis by subscale of the Eating Disorder Inventory only allowed partial acceptance of the hypothesis for Drive for Thinness, Perfectionism, Interoceptive Awareness, and Maturity Fears dimensions.

Summary

Due to the eight dimensions described by the Eating Disorder Inventory, separate analysis of each subscale was of concern to the study. Differential analysis was, therefore, considered more representative of the research findings.

A preliminary overview of the data for pre- and posttest of all subscales on the Eating Disorder Inventory not only yielded a graphic comparison of experimental and control groups but comparison with the Inventory's normative population. The profile obtained for the experimental group was relatively consistent across the subscales with the results of the normative anorexic sample. Similarly, the experimental group reported expected mean elevations in comparison with results of the normative female college student sample. The profile obtained for the control group was

relatively consistent across subscales with the results of the normative female college sample.

On the Drive for Thinness, Perfectionism, Interoceptive Awareness, and Maturity Fears subscales, rank mean responses from pretest to posttest indicated significant differences in attitude for experimental subjects when compared to control subjects. Four remaining subscales, Bulimia, Body Dissatisfaction, Ineffectiveness, and Interpersonal Distrust indicated attitudinal change scores from pre- to posttest were not significant.

Trends noted in the data were confirmatory for the Drive for Thinness subscale. Findings from the analysis were consistent with studies where the improvement in attitude along this dimension was attributed to treatment focus. Parallel elevations on some subscales indicated that both experimental and control subjects shared concerns about overeating, physical size, weight, and body image, and harbored attitudes of inadequacy and ineffectiveness. Neither group displayed any significant difference in attitude regarding those issues from pre- to posttest. Based upon the study results only partial acceptance of the research hypothesis was possible for four dimensions (Drive for Thinness, Perfectionism, Interoceptive Awareness, and Maturity Fears subscales) of the Eating Disorder

Inventory.

CHAPTER V

DISCUSSION

The main purpose of this study was to investigate the difference in attitude of individuals identified with an eating disorder who have participated in a time-limited treatment program as compared with non-eating disordered individuals. The objectives needed to accomplish the purposes of this study were as follows: 1) to obtain a pretest measure of attitudinal concerns as described by the subscales of the Eating Disorder Inventory across the subject population; 2) to demonstrate the goals of the treatment program for six months on the select population; and 3) to obtain a postmeasure of attitudinal concerns as described by the subscales of the Eating Disorder Inventory across the subject population.

Study Overview

A review of the literature presented a preliminary description of the term attitude, its derivations, and correlated terminology. Selected studies were described where attitudinal concerns were emphasized as important to the inception and maintenance of eating related problems. Characteristic aspects of attitudes such as distortion and disparagement were defined and supporting studies briefly detailed. Cognitive-behavioral models

were reported in the literature as contributing to the description of how attitudinal change takes place.

The study was described as a pretest-posttest control group design. The use of this experimental format allowed dual assessment on the criterion measure, near maximum variable control, and comparison of subject responses. The testing schedule for an experimental and control group was described as follows: 1) pretest data were obtained two weeks before treatment for experimental and control groups; and 2) posttest data were obtained two weeks after completion of the treatment sessions for both experimental and control groups. The data were analyzed utilizing the Mann-Whitney U test to compare both groups.

The Eating Disorder Inventory was the criterion measure for the hypothesis of the study. This measure allowed repeat assessment necessary for a pre-, posttest analysis. The dimensions of the Eating Disorder Inventory were described by eight subscales that were considered valid and correlative to the treatment program.

Limitations

It was important to acknowledge some of the limitations of this study. A serious limitation was the small number of eating disorder subjects in the experimental group. The study population was, however, of comparable age, socio-economic status, and educational background. The small sample size of the experimental group limited the confidence with which the results could be generalized to other samples of individuals with eating disorders.

Problems relative to the selection of the non-eating disorder control comparison group were also noted. As pointed out by Garfinkel et al. (1983), the use of subject selection by control group may not be representative of a true comparison sample. Statistical significance within the data would need to be large to show evidence of importance. Also noted by Garfinkel et al. (1983) was the use of self-report measures which are subject to denial by eating disorder subjects. Although the Eating Disorder Inventory is a standardized measure, concerns regarding underdisclosure in reporting were a valid consideration. This was most evident during the pretest phase where subjects' investment in the treatment program would have been most untenable.

Finally, an eating disordered population invariably

raises questions about the consistency of methodology and intervening treatment variables. This study did not report on the use of medication by the experimental sample since it would have been difficult to make an accurate evaluation of its origination for some subjects. This concern may have contributed to the subject's experience of the treatment program and portion of resulting attitude at posttest. Given these limitations the research must by wary of overinterpreting the data. The findings of this study did, however, suggest some tentative and summative statements.

Conclusion and Recommendations

Only partial support was obtained for the research hypothesis. The results of the study offered some verification of clinical assumptions that eating disordered individuals differ from non-eating disordered individuals in the attitudinal concerns expressed in specified areas.

A modest summary would be that the study findings indicated the following: 1) Some females identified with an eating disorder and compared with non-eating disordered females are more extreme in their attitudinal preferences for thinness, personal expectations of achievement, lack of confidence in recognition of hunger and satiety states; and possibly sustain more focus on

the security of preadolescent years. 2) Some females with eating disorders when compared with non-eating disordered females share attitudinal concerns about overeating, physical size, weight and body image, and experience similar feelings of inadequacy and ineffectiveness.

As a preliminary effort, this study suggested the importance of follow-up efforts in which a larger sample would be obtained and in which a control group described by the absence of any clinical indication of psychopathology as well as eating disorder would be solicited. A larger investigation using the methods of the current study and the Eating Disorder Inventory might address the degree of attitudinal concern that are endorsed by individuals with eating disorders.

Moreover, further study is needed to evaluate the stability of attitude change found in selected subscales of the study. This would accomplish two important goals. First, longitudinal research would assess the true effectiveness of treatment and second, this type of research would evaluate the consistency and stability of attitude change that may be needed to disrupt dysfunctional eating patterns.

APPENDIX A

DIAGNOSTIC CRITERIA FOR ANOREXIA NERVOSA

A. Refusal to maintain body weight over a minimal normal weight for age and height, e.g. weight loss leading to maintenance of body weight 15% below that expected, or failure to make expected weight gain during period of growth, leading to body weight 15% below that expected.

B. Intense fear of gaining weight or becoming fat, even though underweight.

C. Disturbance in the way in which one's body weight, size, or shape is experienced, e.g., the person claims to "feel fat" even when emaciated, believes that one area of the body is "too fat" even when obviously underweight.

D. In females, absence of at least three consecutive menstrual cycles when otherwise expected to occur (primary or secondary amenorrhea). (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen administration.) (American Psychiatric Association, 1987, p. 67).

APPENDIX B

DIAGNOSTIC CRITERIA FOR BULIMIA NERVOSA

A. Recurrent episodes of binge eating (rapid consumption of a large amount of food in a discrete period of time).

B. A feeling of lack of control over eating behavior during the eating binges.

C. The person regularly engages in either self-induced vomiting, use of laxatives or diuretics, strict dieting or fasting, or vigorous exercise in order to prevent weight gain.

D. A minimum average of two binge eating episodes a week for at least three months.

E. Persistent overconcern with body shape and weight (American Psychiatric Association, 1987, pp. 68-69).

APPENDIX C

CONSENT TO PARTICIPATE IN RESEARCH

I agree to participate in a research study being conducted on the W.E.L. program. This research is interested in finding out if individuals identified with an eating disorder benefit from an outpatient program. Participation in this study involves completing an inventory of statements at the beginning and end of the program. The inventory will take about ten to fifteen minutes to complete and involves a self-rating.

This study will be coordinated by Iris Lee who has the approval of Rohen and Associates, sponsors of the W.E.L. program. The results of this study will be useful in evaluating the program.

Iris Lee is a candidate for a Master's Degree in the Professional Psychology program at Lindenwood College and this research is for her thesis.

All participants will remain anonymous. Information obtained will be treated confidentially.

_____

Signature Date

_____

Witness Date

APPENDIX D

ADVERTISEMENT BULLETIN FOR SUBJECT RECRUITMENT

A T T E N T I O N

F E M A L E

VOLUNTEERS

NEEDED TO TAKE PART IN A

6 MONTH STUDY

ON ATTITUDES.

PLEASE FILL OUT THE ENCLOSED FORM

OR CALL

314 000-0000

APPENDIX E

INITIAL CORRESPONDENCE TO VOLUNTEER RESPONDENTS

_____, 1992

Dear Respondent,

Thank you for agreeing to participate in this study on individual attitudes. You will find enclosed the following forms: 1) Consent to Participate in Research (in duplicate), and 2) Subject Characteristics.

Please confirm your assistance by reading and filling out one copy of the Consent to Participate form. Retain the second copy of this form for your records. The form entitled Subject Characteristics contains information obtained during our telephone interview. Please review each item and correct any discrepancies, errors, and vacant responses.

Return both forms in the self-addressed stamped folder provided for your convenience. Once I have this information, I will forward you an inventory and instructions for its completion. If you have any questions please do not hesitate to call me.

Sincerely,

Iris Lee
Principle Investigator

(314) 000-000

APPENDIX F

SUBJECT CHARACTERISTICS FORM*

Name _____ Date _____

Age _____ Sex _____ Marital Status _____

Present weight _____ Height _____

Highest past weight (excluding pregnancy) _____

How long ago? _____ (yrs/mos)

How long did you weigh this weight? _____ (yrs/mos)

Lowest past adult weight _____

How long ago? _____ (yrs/mos)

How long did you weigh this weight? _____ (yrs/mos)

What do you consider your ideal weight? _____

Age at which weight problems began (if any) _____

Present occupation _____

Father's occupation _____

Mother's occupation _____

+ Education level: _____ Grade School

_____ High School

_____ Trade/Business School

_____ College/University (completed)

_____ Ungraduate student

_____ Graduate student

* Initial page of the Eating Disorder Inventory (Garner, Olmsted, Polivy, 1983)

+ Added subject characteristic

APPENDIX G

EATING DISORDER INVENTORY

INSTRUCTIONS

This is a scale which measures a variety of attitudes, feelings and behaviors. Some of the items relate to food and eating. Others ask you about your feelings about yourself. THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE COMPLETELY HONEST IN YOUR ANSWERS. RESULTS ARE COMPLETELY CONFIDENTIAL. Read each question and fill in the circle under the column which applies best to you. Please answer each question *very* carefully. Thank you.

	ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER
1. I eat sweets and carbohydrates without feeling nervous.	O	O	O	O	O	O
2. I think that my stomach is too big.	O	O	O	O	O	O
3. I wish that I could return to the security of childhood.	O	O	O	O	O	O
4. I eat when I am upset.	O	O	O	O	O	O
5. I stuff myself with food.	O	O	O	O	O	O
6. I wish that I could be younger.	O	O	O	O	O	O
7. I think about dieting.	O	O	O	O	O	O
8. I get frightened when my feelings are too strong.	O	O	O	O	O	O
9. I think that my thighs are too large.	O	O	O	O	O	O
10. I feel ineffective as a person.	O	O	O	O	O	O
11. I feel extremely guilty after overeating.	O	O	O	O	O	O
12. I think that my stomach is just the right size.	O	O	O	O	O	O
13. Only outstanding performance is good enough in my family.	O	O	O	O	O	O
14. The happiest time in life is when you are a child.	O	O	O	O	O	O
15. I am open about my feelings.	O	O	O	O	O	O
16. I am terrified of gaining weight.	O	O	O	O	O	O
17. I trust others.	O	O	O	O	O	O
18. I feel alone in the world.	O	O	O	O	O	O
19. I feel satisfied with the shape of my body.	O	O	O	O	O	O
20. I feel generally in control of things in my life.	O	O	O	O	O	O
21. I get confused about what emotion I am feeling.	O	O	O	O	O	O
22. I would rather be an adult than a child.	O	O	O	O	O	O
23. I can communicate with others easily.	O	O	O	O	O	O
24. I wish I were someone else.	O	O	O	O	O	O
25. I exaggerate or magnify the importance of weight.	O	O	O	O	O	O
26. I can clearly identify what emotion I am feeling.	O	O	O	O	O	O
27. I feel inadequate.	O	O	O	O	O	O
28. I have gone on eating binges where I have felt that I could not stop.	O	O	O	O	O	O
29. As a child, I tried very hard to avoid disappointing my parents and teachers.	O	O	O	O	O	O
30. I have close relationships.	O	O	O	O	O	O

	ALWAYS	USUALLY	OFTEN	SOMETIMES	RARELY	NEVER	
31. I like the shape of my buttocks.	O	O	O	O	O	O	*
32. I am preoccupied with the desire to be thinner.	O	O	O	O	O	O	
33. I don't know what's going on inside me.	O	O	O	O	O	O	
34. I have trouble expressing my emotions to others.	O	O	O	O	O	O	
35. The demands of adulthood are too great.	O	O	O	O	O	O	
36. I hate being less than best at things.	O	O	O	O	O	O	
37. I feel secure about myself.	O	O	O	O	O	O	
38. I think about bingeing (over-eating).	O	O	O	O	O	O	
39. I feel happy that I am not a child anymore.	O	O	O	O	O	O	
40. I get confused as to whether or not I am hungry.	O	O	O	O	O	O	
41. I have a low opinion of myself.	O	O	O	O	O	O	
42. I feel that I can achieve my standards.	O	O	O	O	O	O	
43. My parents have expected excellence of me.	O	O	O	O	O	O	
44. I worry that my feelings will get out of control.	O	O	O	O	O	O	
45. I think that my hips are too big.	O	O	O	O	O	O	
46. I eat moderately in front of others and stuff myself when they're gone	O	O	O	O	O	O	
47. I feel bloated after eating a normal meal.	O	O	O	O	O	O	
48. I feel that people are happiest when they are children.	O	O	O	O	O	O	
49. If I gain a pound, I worry that I will keep gaining.	O	O	O	O	O	O	
50. I feel that I am a worthwhile person.	O	O	O	O	O	O	
51. When I am upset, I don't know if I am sad, frightened, or angry.	O	O	O	O	O	O	
52. I feel that I must do things perfectly, or not do them at all.	O	O	O	O	O	O	
53. I have the thought of trying to vomit in order to lose weight.	O	O	O	O	O	O	
54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).	O	O	O	O	O	O	
55. I think that my thighs are just the right size.	O	O	O	O	O	O	
56. I feel empty inside (emotionally).	O	O	O	O	O	O	
57. I can talk about personal thoughts or feelings.	O	O	O	O	O	O	
58. The best years of your life are when you become an adult.	O	O	O	O	O	O	
59. I think that my buttocks are too large.	O	O	O	O	O	O	
60. I have feelings that I can't quite identify.	O	O	O	O	O	O	
61. I eat or drink in secrecy.	O	O	O	O	O	O	
62. I think that my hips are just the right size.	O	O	O	O	O	O	
63. I have extremely high goals.	O	O	O	O	O	O	
64. When I am upset, I worry that I will start eating.	O	O	O	O	O	O	*

FOR OFFICE USE ONLY								
	DT	B	BD	I	P	ID	IA	MF

APPENDIX H

INSTRUCTIONS TO CONTROL SUBJECTS FOR PRETEST/POSTTEST*OF THE EATING DISORDER INVENTORY

_____, 1992

Dear Participant,

This is the first of two requests for your assistance in this study. You will find enclosed a two page inventory of 64-items.

The instructions for this inventory are as follows: READ EACH STATEMENT CAREFULLY AND FILL IN THE CIRCLE CORRESPONDING TO THE MOST LIKELY OR TRUE RESPONSE YOU WOULD GIVE. Please allow sufficient time for yourself so you are able to complete all statements independently and at one sitting.

When you are finished, please return the inventory in the enclosed self-addressed stamped envelope provided for your convenience. Your cooperation in this project is most appreciated.

Sincerely,

Iris Lee
Principle Investigator

(314) 000-0000

*For Posttest, the phrase was changed to: This is the second request for your assistance in this study.

APPENDIX I

PROCEDURAL FORMAT OF THE W.E.L. PROGRAM

I. Understand the impact of eating disorders psychologically, physically, and spiritually.

   A. 12 step program, powerlessness over food

   B. Understand appropriate eating

   C. Self-monitoring for eating

   D. Meal planning

   E. Introduction to hypnotherapy

   F. Gaining family commitment

II. Self-Esteem and Body Image

   A. Impact of body image on behavior

   B. Understand self-esteem and influence of the family

   C. Understand personal strengths

   D. Assist participants in gaining control over specific problems

   E. Learn the set point theory

   F. Help the family understand the impact of body image and self-esteem

III. Identifying Negative Thought Patterns

   A. Learn how irrational beliefs about the body effect emotions, thoughts, and behavior

   B. Understand one's own irrational thoughts

   C. Irrational thoughts and eating

   D. Assertive behavior

   E. Family impact on irrational and rational thought patterns

IV. Changing Negative Thoughts to Positive Thoughts

A. Relationship of self-talk to values

B. How irrational sentences affect behavior and control others

C. Learn relaxation and imagery techniques

D. Tension and eating

E. Learn how to order when eating out

F. Meal planning

G. Shopping for food

V. Stress Management

A. Learn how stress affects me

B. Learn alternative stress management techniques

C. Learn how certain foods affect moods, anxiety, etc.

D. Learn to recognize fullness

E. Eat appropriately

F. Learn effective family stress management

VI. Understanding Self and Relating To Others

A. Understand self

B. Learn to relate to others

C. Understand myths of intimacy

D. Learn to become relaxed with eating

E. How to deal with the cafeteria line

APPENDIX J

PRELIMINARY OVERVIEW OF PRETEST OF THE EATING DISORDER INVENTORY FOR EXPERIMENTAL AND CONTROL GROUPS

Table J-1

Variable	Group			
	Experimentals[a]		Controls[b]	
	X	SD	X	SD
Drive for Thinness	9.20	7.98	2.72	1.83
Bulimia	5.00	6.00	.48	.94
Body Dissatisfaction	20.80	6.38	7.06	4.02
Ineffectiveness	11.00	6.59	1.48	1.35
Perfectionism	5.60	3.13	4.31	2.84
Interpersonal Distrust	6.20	3.83	3.41	2.23
Interoceptive Awareness	9.40	7.50	.89	1.04
Maturity Fears	5.20	4.55	2.62	1.93

Note. Mean scores represent unranked data.

[a] $n = 5$. [b] $n = 29$.

APPENDIX K

PRELIMINARY OVERVIEW OF POSTTEST OF THE EATING DISORDER INVENTORY FOR EXPERIMENTAL AND CONTROL GROUPS

Table K-1

Variable	Group			
	Experimentals[a]		Controls[b]	
	X	SD	X	SD
Drive for Thinness	7.20	6.14	2.48	1.82
Bulimia	3.20	3.96	.45	.74
Body Dissatisfaction	19.20	6.44	7.14	3.81
Ineffectiveness	4.60	2.07	1.55	1.55
Perfectionism	4.00	3.24	4.69	2.97
Interpersonal Distrust	3.40	2.97	3.17	2.02
Interoceptive Awareness	5.60	3.65	.76	.95
Maturity Fears	4.00	4.64	2.52	1.62

Note. Mean scores represent unranked data.

[a] $n = 5$. [b] $n = 29$.

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