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THE EFFECTIVENESS OF THE INTENSIVE GROUP PROCESS-RETREAT
MODEL FOR THE TREATMENT OF BULIMIA

The University of Arizona

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THE EFFECTIVENESS
OF THE
INTENSIVE GROUP PROCESS-RETREAT MODEL
FOR THE TREATMENT OF BULIMIA

by
Mary Margaret Gendron

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF COUNSELING AND GUIDANCE
In Partial Fulfillment of the Requirements
For the Degree of
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In the Graduate College
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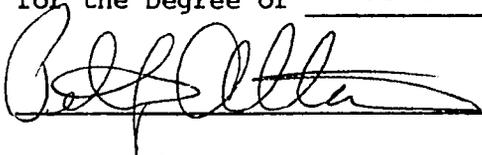
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THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

As members of the Final Examination Committee, we certify that we have read
the dissertation prepared by Mary Margaret Gendron

entitled THE EFFECTIVENESS OF THE INTENSIVE GROUP PROCESS-RETREAT
MODEL FOR THE TREATMENT OF BULIMIA

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for the Degree of Doctor of Philosophy.



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Betty J. Newlon
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Mary M. Bender

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ABSTRACT

The present study examined the effectiveness of a short-term, intensive, group process-retreat treatment model for bulimia. The multi-component, two-day treatment and follow-up booster session focused primarily on the interpersonal deficits associated with the disorder. A sample of 24 subjects who met the DSM III criteria for bulimia and who binged/purged at least one time per week participated in the study. Compared to a control group (N=12), the women who received the group treatment (N=12) evidenced significant improvements in self-esteem and severity of binge eating. The frequency of binge/purge episodes and dysfunctional eating attitudes were also significantly reduced. The results of this study suggest that the intensive group-process retreat model is an effective adjunct in the treatment of bulimia.

CHAPTER I

INTRODUCTION

The helping profession faces a serious challenge in the 80's. That challenge is posed by bulimia, the binge/purge syndrome, an eating disorder whose sufferers demand specialized forms of treatment not yet adequately researched by the profession. Labeled the "disease of the decade" by the U.S. Public Health Department (1982), prevalence rates of bulimia have been estimated as high as 19% of the women on a large university campus (Halmi, Falk and Schwartz, 1981). However, two studies that used rigorous sampling validity note the incidence of bulimia is approximately 5 percent among high school and college students (Johnson, et al., 1984; Pyle, et al., 1983).

The high incidence rate, coupled with increased attention by the media, has focused national awareness on the demands for effective treatments for bulimia. In a recent review of the research on bulimia, Stunkard (1985) expressed concern about the adequacy of treatment for a disorder increasing in prevalence and complexity. He states:

It is now 25 years since what I believe was the first description of bulimia in the scientific literature and until quite recently there has been

little progress in understanding (or treating) this baffling disorder. If we look back . . . it sometimes seems as if it is gaining on us. The problem seems to have become more complicated and more intractable and it is certainly more widespread (p. 199).

Preliminary reports on bulimia generally go no further than to describe the symptoms, personality characteristics and maladaptive eating patterns of the disorder. While progress has been made in describing the disorder, a limited number of studies document treatment models or treatment outcome. Despite a proliferation of professional and popular publications, the diagnosis and treatment of bulimia has only recently been the subject of empirical investigation.

Bulimia was first recognized as a distinct disorder by the American Psychiatric Association (APA) in 1980. The diagnostic features of the disorder include episodic eating patterns involving rapid consumption of large quantities of food in a discrete period of time, usually less than two hours, awareness that this eating pattern is abnormal, fear of not being able to stop eating voluntarily, and depressed mood and self-deprecating thoughts following the eating binges. Three of the following criteria also must be present: eating in private during a binge, termination of a binge through sleep, social interruption, self-induced vomiting, abdominal pain, repeated attempts to lose weight by self-induced vomiting, severely restricted diets, or use

of cathartics and/or diuretics, and frequent weight fluctuations due to alternating binges and fasts. In addition, the bulimic episodes must not be due to anorexia nervosa or any known physical disorder (APA, 1980).

Personality and psychological characteristics associated with bulimia include depression, low self-esteem, recurrent anxiety and difficulties with impulse control (Katzman and Wolchik, 1984; Norman and Herzog, 1984). Johnson, Lewis and Hagman (1984) note deficits in self-esteem that are expressed through feelings of "inadequacy, helplessness, ineffectiveness, guilt, self-criticism, and feelings of being undifferentiated" (p. 259). Researchers have also reported that bulimics when compared to nonbulimic women have a greater need for approval, higher expectations and dissatisfaction with body image (Katzman and Wolchik, 1984). Studies of locus of control evidenced bulimics with a higher degree of external control than comparison subjects (Allerdissen, Florin and Rost, 1981; Rose, Neuhaus and Florin, 1982). Interpersonal situations that require expression of feelings, conflict resolution or assertion skills are problematic for women with bulimia and often trigger binge eating (Johnson et al., 1982). Consequently, impairment in family and other relationships has been reported (Norman and Herzog, 1984). Johnson and Pure (1986) have noted that "rather than risk anger or rejection,

bulimic patients will often inhibit their own responses. The end result is avoidance of others and dissatisfaction with relationships" (p. 434).

Medical complications such as dental cavities, erosion of enamel and abnormal electrolyte balances contribute to the severity of this disorder (Pyle, Mitchell, and Eckert, 1981). Patients frequently report problems with fatigue, muscle cramping, headaches and dizziness. Additional complications include urinary tract infections, renal failure (Russell, 1979), rectal bleeding (Herzog, 1982) and acute gastric dilation (Mitchell, Pyle and Miner, 1982).

Biological factors such as affective instability, family characteristics and an unstable sociocultural context have been cited as contributing factors in the development of bulimia. The pursuit of thinness is the most important goal and is offered as concrete evidence of self-control and mastery over impulses.

Approaches To Treatment

To date, adequate descriptions are available on the maladaptive patterns of the disorder but empirical validation of effective treatment components is needed. Studies must be conducted if specialized treatments are to be developed. In addition, providers of treatment need to

assess which treatment modalities are most effective in meeting the increasing demands for care.

Modalities in the treatment of bulimia include individual, family, and group therapy approaches combining a variety of interventions. Thus far, individual therapy, focusing on interruptions in the binge/purge cycle, has received most of the attention in the literature. Published reports primarily involve case study designs using a behavioral treatment approach (Grinc, 1982; Leitenberg et al., 1984; Linden, 1980; Rosen and Leitenberg, 1982). These studies report favorable results in terms of interruption or cessation of binge/purge behavior. However, the reports suffer from methodological weaknesses, such as lack of a control group and use of a restricted number of dependent measures, which limit the significance of their results. No studies, to date, have researched treatment outcome using family therapy with bulimics. Instead, studies tend to describe case histories and propose family therapy as a working model for the treatment of bulimia (Schwartz, 1981; Schwartz, Barret, and Saba, 1984). The psychosomatic family model (Minuchin, Rossman and Baker, 1978), though useful as a clinical guide in the treatment of eating disorders, lacks empirical validation (Kog, Vandereycken, and Vertommen, 1985).

Increased attention to treatment outcome in groups has been noted in the literature. Reports document multi-component treatment approaches typically used in hospital or university settings. Most studies describe a short-term (7-12 week), cognitive-behavioral treatment or psychoeducational approach (Boskind-Lodahl and White, 1978; Johnson, Connors and Stuckey, 1983; Lee and Rush, 1986; Wolchik, Weiss and Katzman, 1986). While the format of the treatment groups differs from study to study, treatment approaches commonly follow the three-stage cognitive-behavioral model used by Fairburn (1981, 1984). Stage 1 focuses on patient education, a prescribed eating plan, and self-monitoring to interrupt the cycle of overeating and vomiting. Stage 2, initiated when the binge/purge cycle is sufficiently controlled, involves training in problem solving and cognitive restructuring. Patients are instructed to review food records and identify patterns and stressful situations associated with a binge/purge episode. During stage 3, each patient specifies in writing an individualized contract and strategies for prevention of relapse. Behavioral techniques such as the manipulation of antecedents, selection of alternative behaviors and development of coping strategies for problematic situations are components of most multi-dimensional treatments.

Although group treatment approaches, particularly cognitive-behavioral groups, may share these common stages and techniques, they differ in the target for intervention. A majority of group treatments focus on symptomatic eating patterns and the binge/purge cycle (Johnson et al., 1984; Lacey, 1983a; Mitchell, Stevens and Salisbury, 1984). Other studies describe treatment groups that target behavioral deficits accompanying bulimia, such as non-assertiveness, depression, and low self-esteem (Boskind-Lodahl and White, 1978; Kirkley et al., 1985; Wolchik et al., 1986). Reports indicate that both approaches lead to a decrease in binge/purge frequency. Favorable results in terms of increased self-esteem and a decrease in depression also have been noted in those groups where these were the focal points of treatment (Boskind-Lodahl and White, 1978; Wolchik et al., 1986). A third approach to group treatment of bulimia targets deficits in interpersonal functioning such as lack of trust, direct communication and intimacy in relationships (Boskind-White and White, 1983; Brisman and Siegel, 1985; Bohanske and Lemberg, 1985). In this model, maladaptive eating patterns and behavioral interventions that typically are the focus of other group treatments for bulimia are of only secondary importance. The primary goal is to improve interpersonal effectiveness rather than focus on symptom control.

The interpersonal group model has been successful in terms of improved psychological functioning (Lieberman, Yalom, and Miles, 1973; Yalom, 1975). Thus far, only a few reports have described the use of interpersonal expression as a component of group treatment for bulimia (Boskind-Lodahl and White, 1978; Roy-Byrne, Lee-Benner and Yager, 1984; Shisslak et al., 1986; White and Boskind-White, 1981, 1984). However, no controlled studies have documented the effectiveness of the interpersonal model in the group treatment of bulimia.

The unique value of an interpersonal group for patients with eating disorders is that it presents them with the opportunity and a safe environment to overcome fears generated by the expression of feelings regarding the isolation and shame associated with the disorder. The interpersonal group approach accomplishes this by allowing patients to master their anxiety by expressing themselves directly to the other group participants rather than using their bodies and preoccupation with food as a shield from their fears (Wooley and Wooley, 1984). The interpersonal group model is viewed by Wooley and Wooley (1984) as an "infinitely more vivid and challenging alternative to behavior therapy directed at altering interpersonal behaviors (i.e. social skills, assertiveness training) and

to self-examination as carried out in most forms of individual therapy" (p. 411).

One application of the interpersonal group treatment for bulimia is an intensive group-process model utilizing a weekend retreat concept aimed at complementing the psychotherapeutic treatment regime of bulimia patients (Bohanske and Lemberg 1985). The comprehensive treatment package emphasizes the interpersonal laboratory in the group, creating an opportunity for participants to learn more about themselves by learning more about their relationship with others. Bulimia is presented as a learned habit which is often used as an emotional insulator between the private self and the public self. The treatment focuses on "redefining the problem from a weight phobia to a vicious cycle disruptive of interpersonal relationships and, ultimately self-esteem" (Bohanske and Lemberg, 1985, p. 1). The clients explore the function bulimia serves in organizing conflict-avoidant patterns and maintaining interpersonal deficits in relationships. Following the interpersonal workshop, participants practice behavioral techniques (i.e., coping strategies for problematic situations) in a relapse prevention session.

The group process-retreat model has features that other more time-extended treatment models do not. First, participants spend two days away from family and friends in

a therapeutic, non-institutional environment where the stigma associated with seeking treatment is diminished. Second, the weekend retreat model is an effective way to create therapeutic intensity and maximize therapeutic impact by immediately focusing on trust, cohesion and peer support (Bohanske and Lemberg, 1985). The requirement that participants spend the night facilitates group cohesion and tends to increase risk taking behaviors among group members. While the group process-retreat model for bulimics is viewed as a promising alternative in treatment, it requires empirical validation.

Statement of the Problem

The purpose of this study was to investigate the effectiveness of an intensive group-process retreat model for the treatment of bulimia. The effectiveness of the treatment was assessed by changes in: (a) binge/purge frequency, (b) locus of control, (c) self-esteem, and (d) attitudes towards eating. These measures were completed prior to treatment, and one week and four weeks after treatment. Specifically, answers to the following questions were sought:

Question 1: Does the treatment decrease the frequency of binge/purge episodes as measured by the Hawkins-Clement Binge Scale and a self-report food diary?

Hypothesis 1: The treatment group will show a greater decrease in the frequency of binge eating episodes than the control group as measured by the Hawkins-Clement Binge Scale and a self-report food diary.

Hypothesis 2: The treatment group will show a greater decrease in the frequency of the purge episodes than the control group as measured by the Hawkins-Clement Binge Scale and a self-report food diary.

Hypothesis 3: Within the treatment group, no difference will exist in binge/purge frequency measured one week and four weeks following treatment.

Question 2: Does the treatment alter the pathology of eating attitudes as measured by the Eating Attitudes Test?

Hypothesis 4: The treatment group will show greater positive change in pathological eating attitudes than the control group as measured by the Eating Attitudes Test.

Question 3: Does the treatment increase self-esteem as measured by the Rosenberg Self-Esteem Inventory?

Hypothesis 5: The treatment group will show greater positive change in self-esteem than

the control group as measured by the
Rosenberg Self-Esteem Inventory.

Question 4: Does the treatment alter locus of control
as measured by the Rotter Locus of Control?

Hypothesis 6: The treatment group will show
greater increases in internal locus of
control than the control group as measured
by the Rotter Locus of Control.

Value of the Study

In general, group treatment approaches for bulimics have been shown to be effective (Connors, Johnson and Stuckey, 1984; Kirkley et al., 1985; Lacey, 1983a; Mitchell, 1984; Stevens and Salisbury, 1984; Wolchik et al., 1985). However, empirically validated studies of clinical populations are limited, and no studies have investigated a group process-retreat treatment. The increasing prevalence of bulimia and limited data on treatment outcome indicate a need to survey time-limited group treatment modalities.

Therefore, this study will be of value for a number of reasons. It will add to the body of knowledge on the group treatment of bulimics and, more specifically, on short-term, intensive group treatment approaches. Further, the study will assist practitioners by describing the effectiveness of a group process-retreat approach in terms of measures currently used to assess treatment outcome with

bulimics. If the study shows that the treatment protocol is effective this form of group treatment may become a viable alternative or adjunct to current treatment models.

Definition of Terms

For the purposes of this study groups will be distinguished on the basis of time span and treatment approach.

Short-term Group. A time-limited group of less than or equal to twelve weeks duration.

Intensive Group. A group characterized by four to twelve hours of continuous therapeutic contact during a concentrated period of time (i.e. several days to one week).

Long-term Group. A time-extended group of more than twelve weeks duration.

Psychoeducational Approach. A structured, didactic treatment that emphasizes education and behavioral assignments. Topics may include assertiveness, self-esteem, the binge-purge cycle and faulty thinking patterns.

Interpersonal Approach. A process-oriented group that utilizes the dynamics of the group as a laboratory for adaptive communication. Emphasis is on expression of feelings, modification of defenses and resolution of impaired functioning with others.

Limitations

The proposed study was restricted to an investigation of a group process-retreat for bulimics who selected this treatment. Generalizations of the results of this study must therefore be restricted to similar populations in similar treatment programs. The measures of treatment effectiveness were restricted to locus of control, eating attitudes, self-esteem, and frequency of binge/purge behavior. Generalizations should not be made directly to other measures of treatment effectiveness.

Summary

In this chapter, the problem under consideration was identified, the importance of the problem highlighted, the value of the study cited, and the limitations of the study noted.

CHAPTER II

REVIEW OF RELATED RESEARCH

This chapter presents a review of the literature relative to treatment outcome and group therapy with bulimics. The investigation of the literature covers three areas: (1) models for the treatment of bulimia and theories of etiology, (2) treatment outcome with bulimics in groups, and (3) a review of treatment outcome and self-adjustment in groups. Included in this section is a brief review of treatment outcome with intensive group treatments. A summary which discusses implications for this investigation is presented at the end of each section.

Models for Treatment of Bulimia and Theories of Etiology

According to Bemis (1985), the "design of treatment programs for bulimia is equivalent to a leap of faith. It requires an unwarranted -- but perhaps adaptive -- confidence in the accuracy of one's conceptual framework or the acuity of one's clinical insight" (p. 433). The conceptual framework of the clinic or therapist regarding theories of etiology often determines the model of group therapy predominantly used (Brotman, Alonso and Herzog,

1985). Preliminary research on client characteristics and response to treatment has only recently been considered in treatment designs for bulimia. Consequently, the conceptual framework regarding causal factors frequently determines the technique and interventions used in the treatment design. Given that treatment designs for bulimia is a new area of inquiry, it follows that multi-dimensional treatments are frequently used in group therapy to address the medical, psychological and behavioral complications associated with the disorder. To date, research has not focused on an evaluation of specific components of multi-dimensional treatments. However, treatments operating primarily from psychoanalytic or cognitive-behavioral framework have been most frequently cited in the group treatment literature (Boskind-Lodahl and White, 1978; Huon and Brown, 1985; Johnson, Connors & Stuckey, 1984; Lee and Rush, 1986; White and Boskind-White, 1981; Wolchik, Weiss and Katzman, 1986; Yates and Sambrailo, 1984). Gandour, (1984) has noted however, that "differences among proposed etiologies seem to be a matter of emphasis rather than the exclusion of all other causal factors" (p. 21). Therefore, for review purposes, models of treatment for bulimics will be discussed as distinct approaches. Specifically the psychoanalytic, cognitive-behavioral, psychopharmacologic and the pathways model will be discussed.

Psychoanalytic Model

Therapists within the psychoanalytic model theorize that "bulimic symptoms develop in response to intrapsychic or interpersonal conflicts which become intolerable" (Brotman et al., 1985). Characterological problems and deficits such as difficulty maintaining a cohesive sense of self, managing overwhelming impulses and an inability to "soothe, comfort and calm themselves" are addressed in the group (Barth and Warman, 1986). Binge eating is viewed as a compulsive, compromise response directed towards an attempt to regulate overwhelming needs and fearful impulses. Symptom control, or strategies for interrupting the binge/purge cycle are not the primary target of intervention. Rather, group process usually addresses interpersonal conflicts, transference issues between therapist and group members and corrective emotional experiences related to shame, low self-esteem and poor self-object relations. The psychoanalytic model has been primarily used in long-term treatments for bulimia or in combination individual and group treatment designs (Roy Byrne, Lee-Benner and Yager, 1984; Stevens and Salisbury, 1984).

Cognitive-Behavioral Model

This model postulates that covert behavior, in the form of negative self-statements and/or irrational thought

patterns, determines mood and subsequent behavior. Faulty cognitions and maladaptive behaviors are directly targeted as a means of interrupting the binge/purge cycle. The set of ritualized binge behaviors are believed to be triggered by critical or self-deprecatory statements and the associated negative affect (Fairburn, 1981). Garner and Bemis (1982) hypothesize that the treatment of eating disorders will rarely be successful unless the patient's cognitions about weight and appearance are modified. The use of a cognitive-behavioral approach can assist the patient's development of alternative thinking styles and beliefs that support appropriate weight and internalized functioning. In addition, the cognitive techniques are helpful for maintaining effective behaviors in high risk situations. According to Brotman et al. (1985), the "goal of symptom reduction takes precedence over insight and intrapsychic conflict resolution" (p. 7). Cognitive-behavioral techniques focusing on symptom reduction are easily adapted for use with short-term groups and in groups emphasizing a structured, didactic approach.

Psychopharmacologic

Promising results have been reported using medication to alleviate symptoms of bulimia in individual patients (Green and Rau, 1974; Pope and Hudson,

1984; Wermuth et al., 1977). This section will briefly review controlled studies of psychopharmacologic interventions for the treatment of bulimia. Studies have been conducted using anticonvulsants (phenytonin) and antidepressants (tricyclics and MAO inhibitors) (Green and Rau, 1974; Pope and Hudson, 1984; Wermuth et al., 1977).

Anti-Convulsant Drugs. The findings of abnormalities on the electroencephalograms of bulimic patients (Green and Rau, 1974) and the view of binge eating as a form of seizure disorder, contributed to the use of anti-convulsant drugs in the treatment of bulimia. The preliminary findings of an uncontrolled, non-blind study by Green and Rau (1974) led to hopeful speculation about the use of phenytonin. Nine of ten subjects with abnormal electroencephalographic tracings responded favorably (decreased binge eating episodes) to the drug treatment.

Wermuth et al. (1977) conducted a crossover design with random assignment to treatment groups in a study involving 19 bulimic subjects. Phenytonin was compared with placebo double-blind protocols. Improvement measured as a decrease in binge eating frequency was reported as "marked" to "moderate" in 42% of 19 patients. Response to the drug treatment was not correlated with EEG abnormalities. Pope and Hudson (1984), used phenytonin with 10 bulimic

patients but did not report a significant reduction in binge eating episodes.

Antidepressant Drugs. Pope and Hudson (1982) describe "rapid improvements" as a result of using antidepressant medication on eight bulimic patients. Results reported in the absence of a control group described six patients with either a moderate (greater than 50%) or marked (greater than 90%) reduction in the frequency of binge eating. Specific response to treatment by individual patients was not clearly reported. Additional uncontrolled reports have documented positive findings in the reduction of binge episodes and improvement in mood following the use of antidepressant medication (Jones, Hudson and Pope, 1983; Walsh et al. 1982).

A placebo-controlled, double blind study describing the use of imipramine detailed positive improvements in binge eating episodes (Pope et al., 1983). The DSM III criteria for bulimia and the requirement of a minimum of two binges per week followed by purging, was used to select 22 subjects for the study. Subjects were randomly assigned to drug or placebo groups. The Hamilton Depression Rating Scale (Hamilton, 1960) and measures of self-control with relation to food preoccupation and intensity of binges, all evidenced statistically significant changes. The 19 subjects who completed the six-week treatment, following the dropout

of 3 subjects, noted a 70% reduction in the frequency of binges. Follow-up data taken at different time intervals, ranging up to eight months, detailed 18 of 22 subjects (90%) reporting a 50% reduction in their binge eating. Approximately one-third of the subjects had stopped bingeing. Pope and Hudson (1984) conclude that "this study provides persuasive evidence that anti-depressants are rapidly effective in many cases of bulimia, and indirect evidence for the hypothesis that bulimia is related to major affective disorder" (p. 84).

Preliminary studies of drug treatments for bulimia appeared highly successful (Green and Rau, 1974; Pope and Hudson, 1982). However, subsequent studies have not sufficiently replicated initial findings (Pope and Hudson, 1984). Small sample size and lack of long-term follow-up limit the conclusions that can be made about the effectiveness of drug treatments with bulimia. To date, no studies have been published which compare or combine controlled drug treatments and group therapy for bulimia.

Pathways Model

Hawkins and Clement (1984) conceptual model of the "pathways to bulimia" view eating disorders as a stress-coping response. Two pathways are suggested: negative psychosocial processes and pathogenic predispositions. Included in the psychosocial category is an emphasis on

cultural familial factors that equate femininity with nurturance and food. Weight consciousness and dieting are learned as an appropriate female role behavior. Cognitions that reinforce a negative self-image based on weight as the primary measure for self-esteem lead to fears of fatness and loss of control. Biological factors such as a high "set point" for body fat may also contribute to a predisposition for obsessive concern with body weight and ineffectiveness in managing weight. Given this background the "trigger" that sets up the binge/purge cycle may be a lack of balance between constraints and social pressures. According to Hawkins and Clement (1984) a "particular precipitating event and a faulty cognitive appraisal may flip the switch for the young woman to enter the gorge-purge interactional cycle" (p. 247). Faulty evaluations of problematic events may lead to loss of control over the stressor. This model postulates that binge eating temporarily comforts and distracts the bulimic away from anxiety associated with the stressor. A faulty cognition leads to redefinition of the problem as being the "uncontrolled overeating itself or the overweight appearance, rather than the original interpersonal or academic difficulty" (Hawkins and Clement, 1984, p. 248).

The pathways model may be viewed as a clinical guide that reinforces the need for a multi-dimensional treatment

for bulimia (Hawkins and Clement, 1984). More specifically, the model reflects the need for combined treatments such as cognitive-behavioral and interpersonal interventions that addresses both psychosocial and cultural-familial processes (Hawkins and Clement, 1984).

Summary

This section has noted the influence of conceptual frameworks and theories of etiology in the design of treatments for bulimia. The psychoanalytic, cognitive-behavioral, psychopharmacologic and pathways model were discussed. Apparent from the review is the contribution of the psychoanalytic and cognitive behavioral models in documenting treatment components and processes appropriate for the treatment of bulimia. The major distinction that can be made between the two models is the emphasis on symptom control and immediate cessation of maladaptive eating patterns in the cognitive-behavioral model. In contrast, the psychoanalytic model is a nonabstinence model focused on resolution of characterological problems. Additional research is needed to assess the effectiveness of treatments using interventions adapted from several models.

Multi-dimensional treatment principals have not been fully developed, cohesively organized, or tested as a direct association with the pathways model. In particular,

psychopharmacologic interventions have not been combined with other treatment interventions.

Group Treatment for Bulimia

Group treatment models are increasingly being used to provide services for the large volume of bulimic patients requesting treatment (Pyle, et al., 1984). Garner and Garfinkel (1982) state . . . "it is the group approach that appears to be particularly promising in the treatment of bulimia." Several group treatment plans have been developed combining successful intervention approaches used in individual therapy (Fairburn, 1981).

The rationale for the use of group therapy in the treatment of bulimia includes many therapeutic considerations that may intensify the recovery process in the population. The secrecy, denial and isolation that accompanies this disorder may most effectively be addressed in a supportive group environment (Bohanske and Lemberg, 1985; Brisman and Siegel, 1985; Browning, 1985; and Shisslak et al., 1986). Group participants can explore the function of the eating disorder and identify the ways food habits and appearance foster a reliance on an identity as a bulimic (Shisslak et al., 1986). Distorted thinking can be challenged and aspects of identity other than external appearance can be emphasized by group members. Additional evidence for the use of group therapy with a predominantly

female disorder is the thinking by Kaplan (1986) that postulates a core self-structure in women directly related to growth within relationships. According to Kaplan (1986), one of the primary ways that women experience and evaluate self-worth is through the ability to initiate and sustain relationships. Kaplan (1986) states:

Connection with others, then, provides a primary context for action and growth . . . what is important is women's sense of taking an active role in the process of facilitating and enhancing connectedness with others. Engagement in this process in turn fosters the gradual evolution of a differentiated self, a self with its own clear properties, wishes, and impulses, and so on, but a self which achieves articulation through participation in and attention to the relational process. Thus, the growth of the differentiated self is commensurate with the growth of one's relational capacities and relational network (p. 235).

Finally, women can identify, understand and discuss the cultural pressures to be thin and recognize the ways in which group members have attempted exaggerated responses to be the "perfect woman" (Shisslak et al., 1986; Wolchik, Weiss and Katzman, 1986).

Although definitive distinctions are difficult to make, the treatment literature has focused on essentially four types of outpatient groups for bulimia as follows: (1) short-term, cognitive behavior or psychoeducational groups (Boskind-Lodahl and White, 1978; Connors, Johnson and Stuckey, 1984; Huon and Brown, 1985; Lee and Rush, 1986;

White and Boskind-White, 1981; Wolchik, Weiss and Katzman, 1986; Yates and Sambrailo, 1984), (2) intensive treatment groups (Mitchell, Hatsukami and Goff et al., 1984), (3) combined individual and group treatment (Lacey, 1983), and (4) long-term groups (Kirkley et al., 1985; Roy-Byrne et al., 1984; Stevens and Salisbury, 1984). Another type of group treatment for bulimia is the bulimia workshop, or the intensive group process-retreat model (Bohanske and Lemberg, 1985; Brisman and Siegel, 1985). These groups will be discussed in terms of time-span, treatment components and interventions. The bulimia group treatment research is summarized in Table 1 and immediately follows the end of this section. Each group reviewed in this section is detailed in Table 1 in terms of (1) the characteristics of the group, (2) duration of treatment, (3) target of intervention, (4) improvements in frequency of binge/purge, (5) instruments used in the study and (6) follow-up results.

Cognitive-Behavior or Psychoeducational Groups

The short-term cognitive-behavioral or psychoeducational model is the most frequently cited group treatment approach for bulimia. This model combines a didactic and experiential approach using a modified insight/support format that involves people in groups identifying and validating related experiences. Cognitive-

behavioral techniques predominate, while targeting the behavioral deficits that accompany bulimia. Maladaptive eating patterns typically are a secondary focus of the group (Wolchik, Weiss and Katzman, 1986).

Cognitive behavioral techniques and training in relaxation as an alternative to binge eating were used in a short-term group treatment for bulimia (Lee and Rush, 1986). The six-week, twice weekly group targeted dysfunctional conditions regarding self-worth and maladaptive eating patterns. Subjects were instructed to control anxiety and dysphoric feelings associated with the binge/purge cycle using progressive relaxation techniques. A psycho-educational approach was used to guide discussion aimed at correcting inaccurate information about nutrition and weight. Following recruitment of subjects from a newspaper article, subjects were screened according to DSM III criteria and the criteria that binge eating equalled or exceeded one binge per week. Excluded from the study were those subjects involved in other treatment experiences.

The authors divided subjects into two groups in reporting outcome data: responders (showed at least a 50% decline in binge frequency from pretreatment to post-treatment) and nonresponders (showed less than 50% decline in binge frequency). Using these categories, 10 of 14 (71.4%) treated subjects responded, and 3 of 14 (21.4%)

wait-list subjects responded. At follow-up, 3 of 14 subjects in the control group could be classified as "responders." A greater decrease in purging also was associated with the treatment group. Decreases in binge/purge frequencies were maintained at follow-up, "although a trend toward relapse might be inferred" (Lee and Rush, 1986, p. 611). Measures of depression on the Beck Depression Inventory decreased, but not on the Hamilton Rating Scale for Depression. The groups were led by the same therapist which hinders generalizations of treatment effect. Lee and Rush (1986) note that the assessments were done by the therapist which raises questions about the accuracy of self-report. Finally, the study did not control for attention placebo (reference A, Table 1).

Wolchik, Weiss, and Katzman (1986; reference B, Table 1) designed a comprehensive, seven-week program directed at the development of new competencies and the behavioral deficits that accompany bulimia. In addition to the group sessions, two individual sessions were included during the course of treatment. The treatment focused on enhancing self-esteem and assertiveness, improving body image, and decreasing depression using a combined psychoeducational and behavioral approach. Eleven subjects participated in the treatment group and seven subjects comprised the waiting list control group. Dependent

measures administered at pre-, post-, and ten-week follow-up included the Rosenberg Self-Esteem Inventory, the Beck Depression Inventory, and the Kurtz Body Attitude Scale-Evaluation Dimension Subscale. Significant effects of treatment maintained at ten-week follow-up included improvement in depression and self-esteem and decreases in number of binges and purges per month. The size of the treatment effect in the change of binge-purge frequency noted a decrease from 44 to 14 binges per month and 35 to 14 purges per month. At follow-up, complete cessation was achieved by one treatment subject and 5 of the treatment subjects reduced the binge-purge frequency by 90%. Improvement in body image could not be attributed to treatment due to similar change scores in the control group. While the treatment approach did not demonstrate improvement for all subjects, Wolchik et al. (1986) concluded that "a short-term group treatment approach that focuses on deficits wider than the maladaptive eating pattern is an effective treatment strategy for bulimia" (p. 33).

A multifaceted group treatment for bulimia described by Huon and Brown (1985), targeted regaining a sense of self-control as the primary intervention. Self-control was developed using relaxation, assertion training and alternative coping strategies. A focus of the treatment was exploration of the secondary gains of bulimia. Subjects

were recruited by a newspaper advertisement with the first 25 subjects randomly assigned to Groups 1 and 2. One year later, an additional 20 subjects were recruited from an ad in a magazine and were randomly assigned to Groups 3 and 4. Groups 1 and 2 met for 12 weekly, 2.5-hour sessions, whereas Groups 3 and 4 met six weeks for an equivalent time period.

Binge frequency, reported as average weekly bingeing, evidenced a significant overall reduction in the 4 groups. Results at the end of treatment noted 16 women (33%) symptom free and at 6- to 18-month follow-up 68% of the subjects reported being symptom free. Data on subject characteristics were limited. However, the authors reported average binge-purge frequency decreased from 12.6 episodes prior to the program to 0.8 episodes at 6-month follow-up. The Body Cathexis and the Self Cathexis scores were used as dependent measures. Significant increases in test scores were noted on both measures (reference C, Table 1).

Several university and hospital settings have developed brief, psychoeducational treatment packages as an adjunct or alternative to long-term therapy. Connors, Johnson and Stuckey (1984) used a multiple baseline design to assess the effectiveness of a three-phase educational, behavioral, and support group treatment approach. Phase 1 reviewed sociocultural, emotional, and physical factors related to an understanding of bulimia. Patients received

instruction in self-monitoring and alternatives for bingeing. During Phase II, patients were encouraged to set weekly goals and to contract with group members for specific changes in the bulimic cycle. Patients received instruction in assertiveness training, relaxation training, and coping strategies during Phase III. Twenty subjects completed the group and ten-week follow-up.

Changes in symptomatic eating behavior at follow-up demonstrated that three subjects were symptom-free, 8 subjects had reduced the frequency of binge/purge behavior by 50%, and a total of 17 subjects had reduced the frequency of binge/purge episodes from pretreatment levels. The authors noted a significant decrease in pathological eating attitudes as measured by the Eating Disorders Inventory and an increase in self-esteem as measured by the Tennessee Self-Concept Scale. Body cathexis scores improved, but these changes did not reach a level of significance.

Yates and Sambrailo (1984) used a baseline, therapy intervention, follow-up design to compare the effectiveness of two types of group treatments. Both groups utilized cognitive-behavioral techniques, assertiveness and relaxation training. Group A also incorporated behavioral instruction aimed at changing the response pattern. Stimulus control, response delay and response prevention instructions were given following identification of the

antecedents and consequences of bingeing and purging. Group A evidenced a greater number of subjects with a significant reduction in binge-purge frequency than Group B (Specifically, 5 subjects in Group A versus 2 subjects in Group B). However, analysis of binge-purge frequency noted no significant differential effect for the two therapies. Two subjects in Group A completely stopped bingeing and purging. One subject in Group B achieved a 75% reduction in frequency. Both groups noted a significant reduction in depression scores on the Carroll Rating Scale. The means of both groups on the IPAT Anxiety Scale and the Coopersmith Self-Esteem Inventory were within the normal range at the follow-up, but the changes were not significant. Yates and Sambrailo (1984) conclude that "in the absence of an untreated control group and the familiarity of the changes found in both therapy groups, it would be illogical to conclude that either therapy had a beneficial effect" (p. 515) (reference E, Table 1).

White and Boskind-White (1981) described a combination insight and support group complemented by behavioral techniques (reference F, Table 1). The one-week group met for five hours daily. Assertiveness training, role-playing, and contracting for behavior change were techniques used with 14 normal-weight bulimic females. Pre-, post-, and 3-month follow-up measures demonstrated

improvement on 8 of 18 scales of the California Psychological Inventory. As reflected in other studies, changes in body cathexis scores were not significant (Johnson, Connors and Stuckey, 1984; Wolchik, Weiss and Katzmann, 1986). A 6-month follow-up noted ten subjects with no purge episodes. Seven of these subjects decreased the frequency and duration of the binges, and three were no longer bulimic. No significant change was reported by four subjects. This study suffered from several methodological problems, including lack of rationale regarding selection of dependent measures, inadequate description of subjects, and lack of clarity in reporting results (Gandour, 1984).

Another group treatment study (reference G, Table 1) of bulimia that included a control group was conducted by Boskind-Lodahl and White (1978). Similar to the Wolchik et al. (1986) study, the treatment was directed at improving behavioral deficits. The eleven-week (two-hour sessions and one six-hour session) treatment focused on interpersonal expression of personal isolation and shame, hostility toward parents, and difficulties in achieving independence. Subjects were assigned to treatment or control group based on the order in which they responded to a newspaper ad. Six subjects decreased binge/purge frequency, four stopped bingeing and three subjects maintained pre-treatment frequency. Compared to controls, the experimental group

demonstrated significant change in self-sufficiency and the ability to exert control over social behavior. These changes were not maintained as significant at 3-month follow-up. The study has been criticized for its failure to assign subjects randomly and to record pre- and post-therapy indices of binge/vomiting behavior (Gandour 1984).

In summary, studies of short-term, cognitive behavior or psychoeducational groups have demonstrated favorable results in the interruption or cessation of bulimic behavior. Where behavioral deficits were the target of treatment, improvements in assertiveness and self-esteem and decreases in depression were also noted.

Intensive Treatment Group

This type of group has been described as an intensive, highly structured, cognitive-behavioral treatment model (Mitchell et al., 1984). The group is usually conducted for two months with initial meetings scheduled at high frequency, i.e., 12 three-hour sessions in three weeks. The primary goal of the treatment is the interruption of the bulimic behavior. Behavioral deficits associated with bulimia are addressed in additional group treatments.

The group treatment described by Mitchell et al. (1984) has several unique features. The core part of the program has an emphasis on concepts borrowed from alcohol and drug abuse treatment, such as the requirement of

immediate cessation of the binge/purge behavior and the concept of relapse as an opportunity to apply coping strategies. The multi-component treatment consisted of patient education, group meals, and reliance on behavioral interventions. The behavioral interventions included response prevention, exposure, interruption of the bulimia response chain, and training in problem-solving skills. The short-term follow-up data demonstrated that 49 of 104 (47%) patients surveyed were abstinent during the 2-month program. While the goal of treatment was to correct maladaptive eating patterns, increases in self-esteem and a decrease in depressive symptoms were mentioned as by-products of the treatment program, although no specific data on these measures were reported. A controlled study using a variety of dependent measures is needed to substantiate these apparent changes in self-esteem and depression and to strengthen the merits of this study (Campbell and Stanley, 1963). Thus, the study by Mitchell et al. (1984) demonstrated that almost half of the patients were abstinent at the conclusion of the program. Post-treatment follow-up is needed to determine the rate of long-term abstinence from the binge/purge cycle (reference H, Table 1).

Combined Individual and Group Treatment

Lacey (1983) described an eclectic treatment that combined individual and group approaches. The controlled study included 30 subjects in the ten-week treatment program and 15 subjects who participated as waiting list controls. The beginning stage program emphasized a dietary component that included a food diary, a prescribed diet, and a contract for weight maintenance. Patients were instructed to assume responsibility for their bulimic behavior and to gradually decrease the frequency of binge/purge episodes. During the second stage, the behavioral control strategies facilitated the cessation of the bulimic behavior. Concurrently, psychodynamic, individual treatment sessions allowed for the expression of feelings regarding the loss of the symptom. Follow-up data showed 24 of 30 subjects symptom free. The 15 patients who served as waiting list controls showed no improvement. Additional follow-up self-report data collected up to two years later evidenced 20 of 28 patients symptom-free. The positive outcome results, while limited to binge/purge behavior, provided documentation of a cost-effective, short-term treatment. The study demonstrated that a combined approach using intervention strategies from group and individual modalities was successful (reference I, Table 1).

Long-term Groups

Kirkley et al. (1985), compared two group treatments for bulimia. A cognitive-behavioral treatment which included assignments and directives was compared with a non-directive treatment. Specific behavioral assignments used in the cognitive-behavioral group included: (1) normalization of eating patterns and intake of nutrition from all food groups; (2) delay in time sequence of binge/purge cycle, and (3) guidelines for pace, setting and modification of behavior chain in binge-purge cycle. The non-directive group focused on problematic behaviors, the patterns of the binge/purge cycle and self-disclosure. The non-directive treatment did not include strategies for modification of cognitions or behaviors.

A total of 28 subjects participated in the 16-week treatment groups. The cognitive-behavioral group had 1 subject drop out, whereas 5 subjects dropped out in the non-directive group. Kirkley, et al. (1985) report at 3-month follow-up that 38% of the cognitive behavioral and 11% of the non-directive subjects abstained from bingeing and vomiting. Moreover, the change in binge-purge frequency was significantly greater in the cognitive behavioral group than the non-directive group. Mean frequencies of vomiting at pretreatment for the cognitive behavioral group was 13.6, at posttreatment 0.62 episodes. Whereas, the nondirective

group measured 13.0 at pretreatment and 4.0 episodes at posttreatment. Significant improvements were noted in both groups on the dependent measures for depression, anxiety and cognitions associated with eating disorders. The authors conclude that "a cognitive-behavioral approach focusing on specific behavior changes yields results superior to a less directive approach" (Kirkley, et al., 1985, p. 46).

According to Campbell and Stanley (1963) the results detailed in this type of research design must be evaluated carefully due to the absence of a control group and minimal maintenance of changes at follow-up in binge/purge frequency. All subjects who abused laxatives, alcohol or drugs were excluded from participation in the study. This screening selection may have affected the positive direction of the frequency results. Finally, a clear distinction between the two treatments was not made and the treatment procedures used were not adequately described (reference J, Table 1).

A nonexperimental group treatment study by Stevens and Salisbury (1984) targeted symptom control using a combination of behavioral and psychodynamic treatments. The 16-week treatment was attended by 8 patients at the Cleveland Clinic who agreed to use the group as its primary treatment. Criteria for selection included (1) psychiatric diagnosis of bulimia, (2) 20 years of age or older with some

evidence of separation, or independent living from family, (3) no previous history of hospitalization. No data were reported on how the subjects were recruited for the study or how many did not meet the screening criteria (reference L, Table 1).

Behavioral treatments consisted of maintenance of food records and normalization of eating patterns. In general, the treatment program was not adequately described, particularly the psychodynamic component of the treatment. Results reported solely on binge/purge frequency noted 5 of 6 subjects stopped binge/purge behavior at 10-month follow-up. Two members, who dropped prior to the end of treatment, reported no change in symptoms. The results of this study must be interpreted cautiously due to the absence of a control group and the selection of apparently highly functioning subjects, (i.e. the authors describe the subjects as employed, highly motivated and generally verbal).

Most long-term groups for bulimia emphasize the experiential, interpersonal component of treatment. Only one study, described in case report format, provides thorough details about the techniques, group procedures, and themes used in long-term group treatment of eating disorders (Roy-Byrne, Lee-Benner, and Yager, 1984). The authors describe an eclectic treatment for bulimia that focuses on a

supportive group atmosphere, awareness of binge/purge patterns, and patient education. Nine patients participated in the one-year nonexperimental group treatment study. Eight of the patients were also in individual therapy and three patients were on medication. At the end of treatment, based on results obtained from food diaries, six patients were symptom-free or showed improvement in symptomatology. No supplemental measures were used to assess progress. The authors' description of the progression of group themes, time-line, and appropriate interventions provides helpful guidelines for the practitioner (reference K, Table 1).

The Bulimia Workshop

The bulimia workshop (reference M, Table 1) is a multi-dimensional treatment which allows for rapid group cohesion in a short time period and an intensive, interpersonal group process (Brisman and Siegel, 1985). Rigid defenses are challenged and supported while patients receive extensive therapeutic contact over the course of a weekend, a three-hour follow-up and bimonthly support group meetings. The format introduces an opportunity for patients to experience self-control and choice over their behavior while making an immediate interruption in the binge/purge cycle. Participation in the workshop requires immediate cessation of the bulimic behavior. The treatment includes education on the bulimic pattern, behavioral techniques,

contracting and exploration of communication difficulties associated with the binge/purge cycle. The group is designed to provide a safe setting for the patient to break the pattern of isolation, avoidance of intimacy and the use of bulimia to "anesthetize" herself against the expression of feelings (Brisman and Siegel, 1985).

During a two-year period 144 patients participated in the treatment offered by Bulimia Treatment Associates. Cessation of the bulimic behavior has been noted in 33% of the patients, while 38% of the subjects decreased the frequency of the binge-purge by 50%. This study would have been stronger if: (1) data was examined in comparison to relevant controls, (2) a more detailed description of the patients and the bulimic behavior patterns was provided in order to analyze response to treatment and (3) statistical analysis of the follow-up data was provided (Campbell and Stanley, 1963).

Summary and Implications for the Study

The studies that have been presented in this review substantiate the effectiveness of group treatments for bulimia. Favorable results have been documented for the short-term, psychoeducational group, the approach cited most frequently in the literature. While the length of treatment differed, all studies reported a decrease in frequency of

symptomatic eating. A few studies demonstrated cessation of bulimia. Improvements were noted in those studies where behavioral deficits were assessed.

Apparent in this review of the literature are the commonalities in group treatment for bulimia. Several groups have emphasized a short-term, multi-component treatment that includes patient education, cognitive-behavioral interventions, and a support group environment. While a few studies have used an experiential treatment, most studies used a structured, didactic, psychoeducational approach.

Although it is clear from these studies that group therapy is effective for the treatment of bulimia, the studies reveal these shortcomings: (1) models require replication, (2) insufficient evidence exists to demonstrate the effectiveness of long-term treatments, and (3) only three studies used three or more assessment instruments to document change in areas other than maladaptive eating.

Published reports to date have not adequately evaluated the effectiveness of an intensive, group-process retreat model or bulimia workshop. Only one published study has described the treatment components and investigated the effectiveness of the treatment. Because the bulimia workshop represents a new direction in the group treatment of bulimia it merits further investigation. Critical

questions not answered in this literature review include: (a) the effects of an experiential treatment for bulimia that targets interpersonal deficits (b) the effects of a group-process retreat treatment in a non-institutional setting, (c) the effects of an intensive group treatment for bulimia that does not require immediate cessation of the binge/purge behavior. According to Bemis (1985) research is needed that reviews treatment outcome in "abstinence" and "nonabstinence" models for bulimia, (d) documentation of the effectiveness of group therapy for bulimia on other measures than symptomatic eating, and (e) the effects of an intensive group treatment on subjects who self-select a clinical treatment in a private practice setting rather than a university, or hospital based program.

Treatment Outcome and Group Psychotherapy

This review of the treatment outcome literature on group psychotherapy, not necessarily specific to bulimics, will include: (1) a general overview of group treatment outcome and self-adjustment, and (2) a brief review of group therapy using an intensive approach.

Group Treatment Outcome and Self-Adjustment

In general, group psychotherapy has evidenced improvement in self-esteem, self-acceptance, psychological well-being and self-adjustment (Bednar and Kaul, 1979 Truax,

1968; Yalom, 1966). The majority of studies use the MMPI as the primary measure of treatment outcome. Reductions on several scales of the MMPI were noted across studies. The depression scale was cited as the most frequently improved score (Bednar and Lawlis, 1978). Improvement in psychological functioning is noted with patients receiving treatment for mood disorders, anxiety states and somatic complaints (Bednar and Kaul, 1978). Bednar and Lawlis (1978, p. 818) substantiate that patients with "severe thought disorders, and marked interpersonal withdrawal do not appear to be as readily influenced by group therapy."

The report of group cohesiveness by participants is a good indicator of positive therapeutic outcome (Yalom, 1966). According to Bednar and Lawlis (1978) "an atmosphere of group cohesion plays a prominent role in providing patients with the necessary conditions for the occurrence of a corrective emotional experience in their interpersonal relationships" (p. 823). A limited number of studies measure group cohesiveness when reporting treatment outcome data. Consequently, this observation has not been adequately studied.

Intensive Group Treatment

"Marathon groups or encounter groups are primarily short-term groups where the time is massed and experience is intensive" (Marcovitz and Smith, 1986, p. 49). Kilman and

Sotile (1976) reviewed the treatment outcome literature on 45 studies of the marathon encounter group. It is important to note that 39 of the studies used college volunteers as subjects. Interpretation of outcome criteria are conservative due to the heavy reliance on self-report and the fact that only 9 studies used behavioral criteria to assess the treatment effects. Kilman and Sotile (1976), conclude that marathon groups "evidence positive results in varied aspects of personal and social functioning, although the group effects seem to be temporary" (p. 827). Results did not support the superiority of marathon groups over other types of time formats (Kilman and Sotile, 1976).

Greenberg (1972) used self-report ratings to document the effectiveness of a weekend marathon group. After treatment, psychiatric patients scored significantly higher on the Tennessee Self-Concept Scale. These changes were maintained at two-week follow-up. Self-esteem scores also increased significantly and patients perceived themselves as more "potent and positive." Limitations of this study include lack of randomization and the use of a nonequivalent control sample.

In summary, intensive group treatments suffer from many of the same difficulties in interpretation that limit the evaluation of individual therapy (Bergin and Strupp, 1972; Kilman and Sotile, 1976). The majority of studies

have not used standardized measures and 50% of the studies did not include a follow-up measure of treatment outcome (Kilman and Sotile, 1976). While favorable results have been reported in some studies, particularly when aspects of personal functioning or self-esteem has been measured, additional research using control groups and adequate follow-up are needed.

Summary

Several reviewers of group treatment outcome literature have assumed a cautious and tentative posture in summarizing the findings of outcome studies (Bednar and Kaul, 1978; Kilman and Sotile, 1976). The caution is primarily due to methodological limitations in research design which preclude definitive conclusions about group treatment outcome. As noted in the review, improvements in self-esteem, self-acceptance, psychological well-being and self-adjustment and personal functioning have been reported in the group treatment studies. The major limitation noted is the large number of studies conducted with college students. A need exists for research on patient populations in a variety of settings, including clinical, private practice populations. Preliminary research is also required on intensive group treatments using standardized measures and experienced therapists.

Summary

Included in this chapter was a review of the treatment outcome literature relevant to group therapy for bulimics. A section on models for the treatment of bulimia and theories of etiology highlighted the predominant views in the literature regarding the association between causal explanations and theories in guiding treatment designs. Finally, a brief review of intensive group treatment outcome was presented.

Table 1. Bulimia Group Treatment Research

	Characteristics of Group	Duration of Treatment	Target of Intervention	Frequency Binge/Purge	Instruments	Follow-up
<u>Short-Term, Cognitive-Behavioral or Psychoeducational</u>						
A. Lee & Rush, 1986 Design: Between groups design	1. Short-term 2. Cognitive-Behavioral Subjects: 15 Ss assigned to treatment; 15 Ss to wait list control using modified random block design	Six weeks, twice weekly sessions	1. Dysfunctional attitudes regarding eating, appearance and self-worth 2. Control of anxiety and negative affect associated with binge eating	10 of 14 Ss improved	1. Beck Depression Inventory 2. Hamilton Rating Scale for Depression	+ Four month follow-up - 26% treated cessation of bingeing 6% complete remission Reductions in depressive symptoms
B. Wolchik, Weiss, & Katzman, 1986 Design: Pre-test Posttest Control Group Design	1. Short-term 2. Psychoeducational Subjects: Treatment group: 11 Waiting list controls: 7	Seven weekly 1 1/2 hour sessions	1. Behavioral deficits that coexist with bulimia 2. Development of new competencies	Tended to decrease; little or no reduction for 3 subjects	1. Kurtz Body Attitude Scale 2. Beck Depression Inventory 3. Rosenberg Self Esteem	- Treatment maintained effects at + 10-week follow-up. 6 of 12 Ss + reported 90% reduction in binge frequency
<p>Note: (+) indicates improvement related to treatment goals measured on binge/purge frequency and instruments (-) indicates lack of improvement related to treatment goals measured on binge/purge frequency and instruments ↓ decrease in frequency measure ↑ increase in frequency measure</p>						

Table 1, Continued

	Characteristics of Group	Duration of Treatment	Target of Intervention	Frequency Binge/Purge	Instruments	Follow-up
C. Huon & Brown, 1985 Design: Pretest, Posttest Control Group Design	1. Multifaceted Subjects: 25 randomly assigned Groups 1 and 2, 20 randomly assigned 1 year later Group 3 & 4	Twelve weekly 2 1/2 hour sessions	1. Recovering a sense of control 2. Alternative coping responses 3. Relaxation and assertion training	+ 33% symptom free + purge	1. Eating Problems 2. Body Cathexis Scale 3. Self Cathexis Scale	18 months 68% symptom + free 22% reduced + bingeing by by 75%
D. Johnson, Connors & Stuckey, 1984 Design: Multiple baseline	1. Short-term 2. Psychoeducational 3. Eclectic Subjects: 20 randomly assigned to two groups	10 weeks	1. Symptomatic eating behavior	+ Binge + Purge	1. Tennessee Self Concept 2. Body Cathexis 3. Assertion Inventory 4. Multiscore Depression Inventory 5. Eating Disorders Inventory	+ Follow-up (ten weeks) Overall 70% - reduction in + symptomatic + eating + behavior + Significant improvement in psycho- logical functioning

Table 1, Continued

	Characteristics of Group	Duration of Treatment	Target of Intervention	Frequency Binge/Purge	Instruments	Follow-up
E. Yates & Sambrailo, 1984 Design: Experimental; baseline, therapy (CBT) vs CBT plus behavioral instruction (Grp A)	1. Short-term 2. Cognitive Subjects: 24 Ss randomly assigned to two groups. Half of the Ss in each group placed on a 3 week baseline	Six weeks	1. Cognitions 2. Assertiveness 3. Control of anxiety using relaxation 4. Grp A: Behavioral instruction on changing response pattern.	+ Binge + Purge	1. Binge Scale 2. Eating Attitudes Test 3. Eysenck Personality Questionnaire 4. Carroll Rating Scale for Depression 5. Coppersmith Self-esteem Inventory 6. IPAT Anxiety Scale	Six weeks More Ss in Grp A - significantly reduced binge/purge frequency + +
F. White and Boskind-White (1981) Design: Non-experimental	1. Short-term, intensive 2. Experiential-behavioral Subjects: 14Ss	5 days, 5 hours daily	1. Behavioral deficits 2. Interpersonal expression	+ Binge + Purge little or no reduction 4 Ss	1. California Psychological Inventory 2. Body Cathexis	+ Six-month follow-up: 3 Ss not bulimic, 7 Ss ↓ frequency All 10 Ss no purging

Table 1, Continued

	Characteristics of Group	Duration of Treatment	Target of Intervention	Frequency Binge/Purge	Instruments	Follow-up
G. Boskind-Lodahl & White (1978) Design: Pretest-Posttest Control Group Design	1. Short-term 2. Experiential-behavioral Subjects: 26, assigned to treatment or control group in chronological order	Eleven weekly 2 hour sessions, one six-hour group midway through treatment	1. Behavioral deficits 2. Interpersonal expression	+ 4 Ss stopped, 6 improved	1. Body Cathexis Test 2. 16 PF Questionnaire (2 scales)	+ Three month follow-up testing indicated changes not maintained
<u>Intensive Group Treatment</u>						
H. Mitchell, Hatsukami, & Goff, et al. 1984 Design: Non-experimental	1. Intensive, highly structured 2. Multi-component, multi-disciplinary, 3. Cognitive-Behavioral Subjects: 104 consecutive patients	Two months, high frequency meeting schedule	1. Symptomatic eating behavior	+ Binge + Purge		Termination of treatment 47% of 104 Ss symptom free 25% 1-3 episodes 11% 4 or more episodes

Table 1, Continued

	Characteristics of Group	Duration of Treatment	Target of Intervention	Frequency Binge/Purge	Instruments	Follow-up
<u>Combined Individual and Group</u>						
I. Lacey, 1983	1. Short-term 2. Combination individual and group treatment 3. Eclectic Subjects: 30 Ss treatment group 15 Ss control group	10 weekly sessions, 1/2 hour individual 1 1/2 hour group	1. Symptomatic eating behavior	+ Binge + Purge		Follow-up (up to 2 years) 20 of 28 Ss no binge/purge behavior
<u>Long-term group treatments</u>						
J. Kirkley, Schneider, Agras, Bachman 1985 Design: Between-groups design	1. Long-term 2. Comparison of cognitive behavior and nondirective group. Subjects: 28 Ss assigned to groups using minimization	16 weeks	1. Cognitive-behavior group: symptom control 2. Non-directive group: problematic behaviors, self-disclosure, understanding bulimic behavior	Group 1: + Binge + Purge Group 2: + Binge + Purge	1. Beck Depres- Inventory 2. Speilberger State-Trait Personality Inventory 3. Assertion Inventory 4. Eating Atti- tudes Test 5. Eating Disorders Inventory	+ Three month follow-up + Grp 1: 5 Ss (38%) abstain binge/purge Grp 2: 1 Ss (11%) abstain

Table 1, Continued

	Characteristics of Group	Duration of Treatment	Target of Intervention	Frequency Binge/Purge	Instruments	Follow-up
K. Roy-Byrne, Lee-Benner and Yager, 1984 Design: Non-experimental	1. Long-term 2. Eclectic 3. Experiential interpersonal Subjects: 9	1 year	1. Behavioral deficits 2. Interpersonal expression	+ Binge + Purge		Termination of treatment 6 Ss symptom free or showed marked improvement
L. Stevens & Salisbury (1984) Design: Non-experimental	1. Behavioral (wks 1-6) 2. Psychoanalytic (wks 7-16) Subjects: 8	16 weekly, 90 minute sessions; one 5-hour session	1. Symptom control	+ Binge + Purge		10 months: 5 of 6 ss cessation
<u>Bulimia Workshop</u>						
M. Brisman & Siegel, 1985 Design: Non-experimental	1. Short-term 2. Intensive 3. Multi-dimension- Subjects: 114 received treatment over 2 year period	Weekend 3 hour follow-up bimonthly peer support groups	1. Interpersonal expression	33% cessation; 38% decreased frequency by 50%		

CHAPTER III

METHODS AND PROCEDURES

This chapter addresses the experimental procedures utilized in this investigation of the effectiveness of an intensive group process retreat as a treatment for bulimia. The subjects, procedure, criterion instruments and a description of the treatment are included in this chapter. In addition, the chapter provides an explanation of the experimental design and the statistical analysis used to test the hypotheses.

Subjects

Treatment subjects were recruited from local and national referrals. Flyers describing the workshop were mailed to physicians, psychologists, and other mental health professionals (see Appendix A). In addition, advertisements for subjects were posted in local newspapers and at area hospitals, mental health centers, community colleges, and at Arizona State University. An ad for the workshop was sent to fourteen local and national eating disorder newsletters (see Appendix B).

The subjects who self-selected the group treatment were instructed to call a telephone number to arrange a

screening interview approximately one week prior to treatment. All 14 participants who inquired about the group treatment were screened and registered for the workshop. Control group subjects were recruited through referrals from the private practice of Dr. Lemberg and Ms. Bohanske, at the Eating Disorder Center of Greater Phoenix and from a self-help group in the Phoenix area. A letter detailing the requirements for participation in the study was handed out to subjects by Dr. Lemberg, Ms. Bohanske and the director of the self-help group (see Appendix C). The recruitment period for subjects was from April through July 1985 and March through May 1986. Due to the limited number of subjects who self-selected the group treatment or volunteered to participate in the research (N=26), random assignment was not made to group treatment or control conditions. Both experimental and control group subjects were paid stipends by the researcher to increase compliance with the data return.

The screening criteria for all subjects was the Diagnostic and Statistical Manual of Mental Disorders (DSM III) criteria for bulimia (American Psychiatric Association, 1980) (Table 2).

In addition to the DSM III criteria all subjects met the following requirements: (1) binge-purge frequency at least one time per week, and (2) consumption of

Table 2. DSM III Criteria for Bulimia

-
- A. Recurrent episodes of binge eating (rapid consumption of a large amount of food in a discrete period of time, usually less than two hours).
- B. At least three of the following:
- (1) consumption of high-caloric, easily ingested food during a binge
 - (2) inconspicuous eating during a binge
 - (3) termination of such eating episodes by abdominal pain, sleep, social interruption, or self-induced vomiting
 - (4) repeated attempts to lose weight by severely restrictive diets, self-induced vomiting, or use of cathartics or diuretics
 - (5) frequent weight fluctuations greater than ten pounds due to alternating binges and fasts
- C. Awareness that the eating pattern is abnormal and fear of not being able to stop eating voluntarily.
- D. Depressed mood and self-deprecating thoughts following eating binges.
- E. The bulimic episodes are not due to Anorexia Nervosa or any known physical disorder.
-

American Psychiatric Association; Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Washington, D.C., APA, 1980, pp. 70-71.

approximately 1,000 calories per binge. Criterion for exclusion in the study included subjects with suicide ideation or thought disorders.

Procedures

To assure an adequate sample size, two treatment groups were held within a one-year period specifically June, 1985 and May, 1986. Subject data from both groups were combined for statistical analysis.

The experimental design called for pre-testing, post-testing, and follow-up testing of the experimental and control group. The instructions to subjects regarding completion of the questionnaire packet are contained in Appendix D.

The pre-test instruments consisted of: (1) The Eating Attitudes Test (Garner and Garfinkel, 1979), see Appendix E, (2) The Hawkins-Clement Binge Scale (Hawkins and Clement, 1980), see Appendix F, (3) Rosenberg Self-Esteem Inventory (Rosenberg, 1965), see Appendix G, (4) The Rotter Internal-External Scale (Rotter, 1966), see Appendix H, and (5) a food diary for recording binge-purge frequency, see Appendix I.

The Eating Problems Questionnaire (Stuckey, et al., 1981) was used to structure the screening interview and provide information on each subject (see Appendix J). Attention was given to demographic information and the

nature of the eating problem including age of onset, description of a typical day, frequency and patterns of binge/purge cycle, and associated physical problems. The pretests were given 3-5 days before the experimental group received treatment.

Following the treatment, at one-week and four-week intervals, the battery of instruments were readministered. The order of administration of the instruments was varied to counterbalance potential practice, order, or fatigue effects. The subject consent form emphasized the voluntary nature of participation in the study and described the measures taken to preserve anonymity of the subjects (see Appendix K). Precautions to preserve anonymity included the use of four-digit codes by the subject on all questionnaires. The subjects were told that no names would be used on the questionnaires and that only the subject would know her code number.

Description of Treatment

Overview: The treatment workshop entitled, "Gorge, Purge and Guilt" has been offered in the Phoenix area since 1981. Seven workshops have been conducted during the past four years, averaging 8 to 12 participants.

The workshop addresses the following treatment issues: (1) underlying psychological conflicts, both intrapsychic and interpersonal, (2) associated distorted

beliefs, (3) biological impact of binge/purge behavior and nutritional deficiencies and (4) the need to reorganize personal goals away from weight control and body image toward "healthier obsessions" and ultimately lasting personal worth and a positive identity (Bohanske and Lemberg, 1985). According to Bohanske and Lemberg, 1986:

One of the primary goals for the weekend is to assist individuals in redefining "the problem" and in changing their pattern in some significant way. For some, this may mean going for an entire weekend without bingeing or purging; for others, it may mean eating one meal without purging. For still others, the difference may come not in the eating pattern, but in developing a level of intimacy seldom experienced (p. 4).

Client preparation for treatment: Client preparation was given considerable attention in order to assess the readiness for treatment and to maximize the level of participation. The effectiveness of pre-therapy training as related to positive treatment outcome was supported in the literature (Yalom, 1985). Prior to the workshop each participant was mailed a packet that included a questionnaire (Bulimiarexia Questionnaire, see Appendix L) which surveyed the history and symptoms of the disorder. Participants were also asked to list solutions they had tried in order to overcome the bulimia.

Time Format: The structured therapy component included 15 hours of intensive therapist-patient contact and two hours, one week post-treatment in a booster session on

relapse prevention. The 15-hour workshop was offered on a weekend and was divided into three stages.

Setting: The workshop was held at a resort hotel which provided a relaxing retreat atmosphere away from daily demands and routines. Hotel rooms were provided as part of the workshop fee and were shared by two to three participants.

Initial Stage -- Expectation Set and Group Formation:

The workshop begins with a review of the responsibilities and expectations of the leaders and group members. The leaders explain that the workshop is primarily organized around feelings, relationships, and personal goals. Attention is focused on food and binge/purge patterns as they relate to deficits in interpersonal functioning and self-esteem. In addition, the leaders explain that the clients can expect to be challenged and provoked into redefining the problem of bulimia in a way that implies new solutions. Bulimia is presented as a learned habit, a behavior that one does rather than an identity or disease process that is fixed.

The leaders request a commitment from the clients to dispel false hopes or unrealistic expectations for change (i.e., the workshop as the magic cure). The clients are asked to review their expectations of the workshop and to identify how the workshop might be helpful. As a means of

building group cohesion and targeting potential problems, clients are asked to review the "Bulimarexia Questionnaire" (see Appendix L) and share with the group (a) how the problem started, (b) its duration, and (c) its current status. Group members are also asked to share whether they have discussed the bulimia with significant others and what kind of support they have received for the disclosure.

The leaders introduce a nonverbal exercise to foster group cohesion and provide group members with an opportunity to introduce themselves in a comfortable manner. Participants are instructed to write descriptive statements on a sheet of paper in response to a variety of open-ended questions (i.e., listing adjectives that describe themselves.) Holding the paper in their hands the participants walk around the room and nonverbally exchange their responses with the group. A common observation that occurs with this exercise is the acknowledgement by the members of their negative self-image and poor self-esteem.

At the conclusion of the initial stage, a recovered bulimic from a previous workshop highlights her experience of the workshop and the steps she implemented in her recovery. The speaker notes that the workshop was not a "cure" but rather a "turning point" that provided the momentum to emphasize a new identity and alternative coping patterns. Bohanske and Lemberg (1986) request that the

speakers share experiences of a previous workshop in order to "promote realistic expectations for change and to enhance the perception of the retreat in facilitating recovery" (p. 6). A final summary reviews the common problems among group members, as well as individual goals and appropriate issues for group work during the afternoon.

Following the speaker, the group members are asked to rate themselves on a scale of 1 - 10 in two areas: (1) Commitment to change, and (2) the amount of responsibility they believe they can take for their own behavior. This rating exercise is repeated at various points in the workshop to enhance the awareness of responsibility for behavior. Participants are asked to reflect on changes in the scores as the workshop progresses. Following the exercise, lunch is recommended as a group experience although the choice is left up to each individual participant.

Working Stage -- Understanding Bulimic Cycle and Building Group Cohesion: Immediately following lunch, participants are asked to examine the experience of eating with other bulimic individuals. Often they are surprised to find themselves less focused on food and more able to enjoy the social aspect of the experience. The participants report being able to talk about the function that food has served in organizing their day or avoiding problematic

situations. The major focus of this stage is on understanding and redefining bulimic patterns and identification of potential areas for intervention.

Specific therapeutic questions include:

1. What triggers a binge?
2. What do you get from bingeing? from purging?
3. What would you be doing if not bingeing?
4. What are the medical, psychological, and emotional costs of the binge/purge behavior?
5. What would you give up when you stop bingeing and purging?
6. What would you gain when you stop bingeing and purging?
7. What solutions have you tried?

During this stage, emphasis is given to physical and psychological costs and the secondary gains of the pattern. The leaders challenge the group members by focusing on the costs of the pattern and encouraging participants to confront another member's faulty thinking or denial. The group members are encouraged to look at all-or-nothing thinking styles that equate thinness with self-worth. Additional areas for intervention include issues of identity, such as absolutistic strivings for perfection, an overemphasis on external appearance, and maintaining total self-control.

The formal part of the workshop on Saturday concludes with a summary of the major interpersonal themes and identification of the patterns and triggers in the binge/purge cycle. Participants are encouraged to continue interacting with one another on an informal basis throughout the evening.

Final Stage -- Using Group Process to Overcome Personal Impasse to Change: The workshop begins Sunday morning with a review of the previous evening. The group presents itself as a newly formed close-knit group. Participants are asked to describe significant individual problems related to the development of intimacy and trust with other group members. Interpersonal dynamics within the group are explored as opportunities for members to see how others see them. Conflicts or confused expectations are reviewed, such as assuming that others expect one to be binge-free during the workshop. Group members challenge, confront, and support each other in reviewing ineffective coping styles that maintain bulimic behaviors. Feelings, needs and fears related to abandonment, isolation and shame are often expressed for the first time. Frequently these expressions are accompanied by an awareness of anger and sadness. During these highly charged emotional expressions the group is guided to respond with acceptance and validation of the group member's risk taking. Attention is

given to the effect of the catharsis on other group members.

The final stage of the bulimia workshop focuses on strategies for breaking the bulimic cycle (see Appendix M). Participants are encouraged to consider that the problem is not the binge/purge behavior. Instead, the problem is presented as a deficit in interpersonal functioning whereby each day is organized around food as an attempt to maintain a pattern of conflict avoidance. The leaders facilitate a discussion on alternative ways to improve perceptions of self-worth and introduce an exercise designed to provide constructive feedback. Participants may request that members of the group comment on positive personal qualities, body image or weight, as well as suggestions for improvement. At the completion of the exercise, participants are asked how closely the feedback matched the way they would like others to see them. The leaders see the exercise as a powerful intervention citing that "self-critical individuals come to recognize feelings of self-worth for the first time in years" (Bohanske and Lemberg, 1985, p. 10). Suggestions are given to the participants on how to internalize the feedback exercise and positive experiences, in general, that increase self-esteem.

A key component of the final stage is the focus on educational strategies and development of plans for implementing coping skills in problematic situations.

Specific instructions are given to the participants regarding interruption of the binge-purge cycle:

1. Bingeing and purging are identified as two separate behaviors. Identify the triggers that occur for each part of the cycle.
2. Delay the binge by 20 minutes and instead engage in an alternate but satisfying activity.
3. If, at that time you still desire to binge, you are instructed to do so in one place with no distraction, e.g., TV., books, etc. Moreover, the person is to take responsibility for the binge as a conscious choice (Bohanske and Lemberg, 1985).

Participants are encouraged to feel hopeful about recovery and the adoption of new identities organized more appropriately around competence and self-worth. A list of phone numbers of group members is exchanged with the directive that the members continue to develop the support system that was started at the workshop. At the conclusion of the workshop the participants complete an evaluation of the workshop (see Appendices N and O).

Follow-up Booster Session: One week following the workshop, a two-hour booster session on relapse prevention is presented by the author to reinforce progress and use of coping strategies. The patients are given information about the booster session prior to the treatment workshop and meet

at the Eating Disorder Center of Greater Phoenix (Dr. Lemberg and Ms. Bohanske's office). The major goals of this session are to: (1) review problematic events that occurred during the week since the workshop, (2) to reframe relapse as an opportunity to reinstate problem solving strategies and (3) to develop a maintenance plan for each patient.

Leaders' Background and Experience: The workshop was designed by two experienced professionals in the treatment of eating disorders:

- (1) Jacquie Bohanske, A.C.S.W., clinical social worker, is a therapist in private practice at the Eating Disorder Center of Greater Phoenix.
- (2) Raymond Lemberg, Ph.D., clinical psychologist, and director of the Eating Disorder Center of Greater Phoenix. Formerly, he was Director of Psychology at Camelback Hospitals and Mental Health Center.

The workshop was facilitated by Dr. Lemberg and Ms. Bohanske with assistance from the author of this study.

Measures

Eating Attitudes Test

While the Eating Attitudes Test (EAT), (Garner and Garfinkel, 1979), was designed primarily as an index of the symptoms of anorexia nervosa, it has also been used in research on bulimia (Fairburn and Cooper, 1982). The EAT is available as a 40-item and a 26-item measure. Both forms use a self-report, 6-point forced-choice format. The 40-item EAT scores range from 0 to 120; endorsed items most symptomatic of anorexia receive a weight of 3. Validation of the EAT was conducted using two groups of female anorexia nervosa patients (total N=65) and female control subjects (total N=93). Concurrent validity data indicate that the total EAT score significantly correlated with criterion group membership ($r = .87, p < 0.001$). A criterion score of 30 or greater significantly differentiated normal weight controls from patients with clinical anorexia (Garner and Garfinkel, 1979). The research on the EAT has demonstrated a high degree of internal reliability; the alpha reliability computed for anorexics was .79 (Garner and Garfinkel, 1979). The EAT discriminated between female obese subjects, male subjects, and anorexics, with anorexics scoring significantly higher. Scores on the EAT showed insignificant correlations with extroversion, neuroticism, dieting, and weight fluctuations (Garner and Garfinkel, 1979).

The EAT has been also used as a screening instrument for anorexia nervosa in nonclinical populations. Garner and Garfinkel (1979) detected six cases of anorexia nervosa in a group of 112 dance students. The EAT was also used to identify university students with excessive concerns about weight and food-related attitudes (Button and Whitehouse, 1981; Thompson and Schwartz, 1982).

Specific to research with bulimics, EAT scores of 30 or above relate to some of the diagnostic criteria for bulimia (Hawkins and Clement, 1980). Factor II on the EAT, labeled "bulimia and food preoccupation," is the factor most relevant to research on bulimia. Examples of items are: "have the impulse to vomit after meals" and "have gone on eating binges where I feel I may not be able to stop." According to Garner, et al. (1982), Factor II is strongly related to bulimia, a heavier body weight, and total scores on the Hopkins Symptom Check List.

Hawkins-Clement Binge Scale

The Binge Scale (Hawkins and Clement, 1980) is a 19-item, 3-4 point, self-report measure of binge eating. "Intensity or severity" scores are obtained by summing weights of responses on 9 of 19 items. The scale is designed to measure behavioral and attitudinal parameters of bulimia and to provide frequency data on binge eating. Test-retest reliability after one month yielded a

reliability of 0.88. Hawkins and Clement (1980) have used the scale to report data on the psychological correlates of binge eating. Investigations of validity indicate that a nonclinical sample scored lower on the scale than women in treatment for binge eating.

Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale (SES) is a 10-item, 4-point, self-report measure of self-esteem (Rosenberg, 1965). Subjects are instructed to indicate their degree of self-esteem by responding strongly agree, agree, disagree, or strongly disagree on each item. Each item is scored from 1 to 4, and scores may range from 10 to 40. High scores reflect low self-esteem.

Rosenberg (1965) reported initial validation studies of the SES on ten samples of high school juniors and seniors (total N=5,024). Construct validity data evidenced relationships between low self-esteem, depressive affect, and anxiety (Rosenberg, 1965). Tests of convergent validity evidenced the SES scores to be correlated with other measures of self-esteem ($r=.83$) and a psychiatrist's rating ($r=.56$) (Silber and Tippett, 1965). A test of discriminant validity noted SES scores to be unrelated to stability of assessment of others (Tippett and Silber, 1965). Two-week

test-retest reliability of $r=.85$ were reported (Silber and Tippett, 1965).

Rotter Internal-External Scale

The Rotter Internal-External Scale (Rotter, 1966) (IE Scale) is a 2-point, forced choice scale for measuring individual degree of internal and external locus of control. The test consists of 23 items and 6 filler items. High scores reflect a high degree of external control (range 0-23), with each item given equal weight.

The concept of internal versus external locus of control developed out of social learning theory (Rotter, 1966). Rotter describes a person with an internal locus of control as having the perception that "the event is contingent upon his own behavior or his own relatively permanent characteristics" (Rotter, 1966, p. 1), in contrast to luck, chance, or fate. The IE Scale was developed "as a broad gauge instrument . . . to allow for a low degree of predication of behavior across a wide range of potential situations" (Rotter, 1975, p. 62).

Rotter (1966) cites the means and standard deviations for 3,077 subjects within nine different studies as his "norm" groups. A majority of the samples were college students enrolled in introductory psychology classes. Internal consistency using split half-reliability coefficients ranged from $r=.65$ to $r=.76$. Kuder-Richardson

reliability coefficients ranged from $r=.69$ to $r=.76$ for three samples (total $N= 1,600$). One-month test-retest reliability yielded coefficients of $r=.60$ to $.78$. Content validity evidenced no correlation with the Marlowe-Crowne Desirability Scale and intelligence measures. Construct validity was assessed in a number of studies. IE scores correlated with behavioral criteria such as performance on laboratory tasks and attempts to control the environment. Concurrent validity was judged to be satisfactory when the IE scale was compared to a projective test and a semistructured interview. No studies were found to support predictive validity of the IE scale.

Binge-Purge Food Diary

Subjects were instructed to maintain a daily record of their binge-purge behavior. Forms were provided for subjects to record the (1) time, (2) location, (3) food type and quantity, (4) social interaction and feelings, and (5) binge-purge frequency for each day. Treatment subjects maintained the food diary one week prior to treatment and three weeks following the workshop. Control subjects maintained the food diaries for four weeks. The food diaries were used as a self-report measure of binge-purge frequency and to review problematic situations in the relapse booster.

Experimental Design

The design for this study is a non-randomized, control-group, pretest/post-test design described by Isaac and Michael, (1981). The design is represented in the following manner:

	Pretest	Treatment	Post-test	Follow-up
Experimental Group	O_1	X	O_2	O_3
Control Group	O_1		O_2	O_3

The Hypotheses

The hypotheses of this investigation stated in the null form are as follows:

Ho_1 : There will be no significant difference on the follow-up measure between the experimental and control group regarding frequency of binge eating episodes as measured by the Hawkins-Clement Binge Scale and a food diary.

Ho_2 : There will be no significant difference on the follow-up measure between the experimental and control group regarding frequency of purge episodes as measured by the Hawkins-Clement Binge Scale and a food diary.

Ho_3 : Within the treatment group differences will exist in binge/purge frequency measured one week and four weeks following treatment.

Ho₄: There will be no significant difference on the follow-up measure between the experimental and control group regarding changes in pathological eating attitudes as measured by the Eating Attitudes Test.

Ho₅: There will be no significant difference on the follow-up measure between the experimental and control group regarding changes in self-esteem as measured by the Rosenberg Self-Esteem Inventory.

Ho₆: There will be no significant difference on the follow-up measure between the experimental and control group regarding changes in locus of control as measured by the Rotter Internal-External Scale.

Statistical Analysis of the Data

Each of the null hypotheses were tested using an analysis of variance with repeated measures that contrasted the experimental and control group. It was expected that there would be no significant differences prior to treatment between groups. This determination was made based on the pre-test scoring on: (1) Hawkins-Clement Binge Scale, (2) Eating Attitudes Test, (3) Rosenberg Self-Esteem Inventory, (4) Rotter Internal-External Scale, and (5) a food diary detailing frequency of binge/purge episodes. For purposes of this study, the two treatment groups (N=5 and N=7) will be combined as one group (N=12).

It was expected that significant differences would be found between groups on both post-test and follow-up measures, (i.e. the null hypotheses will be rejected). The direction of the expected differences can be found in the substantive hypotheses in Chapter I, pages 10-12. The probability level set for statistical significance is $p < .05$. The Statistical Analysis System (SAS) will be used to compute the analysis (1982).

Summary

The methods and procedures used in the administration of this study were described in this chapter. The discussion included a description of the recruitment of the subjects and the treatment. The pre- and post-treatment testing procedures and four criterion instruments were described in detail. The final section of this chapter reported the hypotheses stated for this study and described the statistical analysis of the data.

CHAPTER IV

RESULTS

This chapter presents the results of the experimental study and a discussion of the statistical analysis. Subsections include (1) method of analysis and (2) analyses of the data in testing the hypotheses.

Method of Analysis

The purpose of this study was to evaluate the effects of an intensive group-process retreat model on bulimic subjects. Subjects completed self-report measures of binge purge frequency, eating attitudes, locus of control and self-esteem. Each null hypothesis was tested using data collected from the dependent measures taken at pre, post (one week after treatment), and four-week follow-up. The findings associated with each hypothesis were based on analysis of variance for repeated measures (SAS, 1982) which yielded an F ratio for changes in raw scores for:

Treatment and Trials Interaction (A x B)

Main effect for Treatment (A)

Main effect for Trials (B)

In order to determine the effect of treatment, a 2 x 3 factorial analysis of variance with repeated measures

on two factors was utilized (Morrison, 1973). The treatment and control group represent the two levels of the group independent variable, a between subjects factor, while the pre-test, post-test and follow-up measures represent the levels of time as an independent variable, a within subjects factor. The effect of treatment relative to no treatment is analogous to the group by time interaction generated by ANOVA. The probability level used for statistical significance was $p < .05$.

Subject Characteristics

A total of 14 women participated in the two treatment groups and 12 subjects served as control group subjects. However, two of the experimental subjects did not complete the follow-up measures. Data on these subjects have not been included in the analysis. Screening interviews conducted with the experimental and control group subjects did not reveal any subjects with evidence of a thought disorder or suicide ideation. Therefore, no subjects were excluded from the study based on this criteria. However, due to the subjects' self-selection for the workshop, involvement in individual treatment or use of medication could not be controlled. Data pertaining to these variables were reviewed in the screening interview and are reported in this section.

The average age of the experimental subjects was 25.1 years (range 18-35) and 24.9 years (range 17-42) for the controls. The highest level of education attained by 50% (7 Ss) of the experimental subjects and 42% (5Ss) of the control group was a GED or high school diploma. An additional 16% (2 Ss) of experimental subjects and 42% (5Ss) of control subjects completed a four-year college degree. Total years of education was averaged in the experimental group as 12.0 years and 14.0 years in the control group. Living arrangements of experimental subjects included 4 (29%) in each category for living with a spouse, roommate or parents. One experimental subject lived alone. Many of these subjects were enrolled in college or making a transition to full-time employment. Hence, 6 (43%) noted they were earning less than \$7,500 per year and in most cases were receiving financial assistance from parents. Similar data were reported by controls: 42% reported earning less than \$7,500 per year; 33% (4Ss) were living with parents; 42% (5Ss) were living with a roommate; 25% with a spouse. All subjects reported sexual preference and activity as exclusively heterosexual. Marital status of experimental subjects noted 50% single, 29% married and 14% divorced. A majority of the control subjects (75%) were single and 25% were married. A summary of the subjects' demographic data is listed in Table 3.

Table 3. Summary table of experimental and control group subjects' demographic data

	Experimental Subjects	Control Subjects
Average Age	25.1	24.9
Average years of education	12.0	14.0
Living arrangements		
a) spouse	4Ss	3Ss
b) roommate	2Ss	5Ss
c) alone	2Ss	
d) parents	4Ss	4Ss
Income per year		
a) less than 7,500	6Ss	5Ss
b) 7,500 - 12,000		2Ss
c) 12,000 - 16,000		
d) 16,000 - 20,000	2Ss	
e) 20,000 - 25,000	1S	1S
f) 25,000 - 30,000	1S	1S
g) 30,000 - 40,000	1S	1S
h) 40,000 or more	1S	2Ss
Marital Status		
a) single	6Ss	9Ss
b) married	4Ss	3Ss
c) divorced	2Ss	

The average duration of illness for the experimental subjects was 5.8 years (range = 2-18 years) and 5.8 years (range = 1-11 years) for the control group subjects. The average number of binge/purge episodes per week reported at initial interview was 8.3 binges (range 3.0-18) and 9.7 purges (range 3.0-18) by experimental subjects; 5.2 (range 2-7) binges and 4.5 (range 1-7) purges by controls. Use of laxatives to purge was also reported by 5 of the

experimental subjects and by 6 of the control subjects. All subjects reported using laxatives a "few times per month" with the exception of one experimental and one control subject who used laxatives (approximately 20-30) two times per week. All women were within 20% of the weight suggested for their height and age, as referenced by the Metropolitan Life Insurance Company (1983) tables.

During the screening interview information was collected regarding previous history of treatment or concurrent treatment. Involvement in concurrent individual treatment for 3 months or less was reported by 50% of the experimental subjects. Additional experimental subjects reported treatment periods of 4, 6, 8, 15 and 18 months (range: no treatment reported by 2 subjects to 18 months of treatment reported by 1 subject). The average duration of concurrent individual treatment for experimental subjects was 3.8 months. Involvement in individual therapy by control subjects noted an average of 9.1 months. Specifically, 4 subjects reported receiving 1 month or less; 1 subject -- 3 months; 2 subjects -- 12 months, 1 subject each at 30 and 48 months. Three control subjects were not involved in any concurrent treatment, except for attendance at one self-help group meeting. Previous history of hospitalization for treatment of the eating disorder was reported by 29% of the experimental and 25% of the control

group subjects. Psychoactive medications related to the patient's emotional problems were being taken by 29% of the experimental and 33% of the control subjects. A comparison of the means, t-values and probability values on pre-test scores between treatment and control group is listed in Table 4. Finally, diagnoses in addition to bulimia were designated by the group leaders in the following areas: Major Affective (5 experimental, 4 control) and Personality Disorders (4 experimental, 3 control).

Comparison of Treatment and Control
Group Pretest Scores

For purposes of this study, two treatment groups were conducted. Both groups were statistically equivalent based on t-test scores (Steele, 1980) of pre-test measures on demographic variables or subject characteristics (age, duration of illness, concurrent involvement in individual treatment, use of medication, previous history of hospitalization or use of laxatives). T-test scores of pre-test measures demonstrated that both groups were statistically equivalent on all dependent variables (binge frequency and severity, self-esteem, eating attitudes and locus of control) except frequency of purging ($p < .02$). The purge episodes per week for group 1 ($x=11.2$) were greater than group 2 ($x=7.1$). Because there was significant

difference between the two groups on only one variable, the data were combined into one experimental group.

The equivalence of the treatment and control groups was examined using a t-test on demographic variables and subject characteristics. No significant differences were noted between groups on the variable of age ($t = .00$, $p < .95$) and duration of illness ($t = .00$, $p < .96$). In addition, no significant differences ($p > .05$) were noted for concurrent involvement in individual treatment ($t = 1.34$, $p < .26$) or use of medication for the disorder ($t = .00$, $p < 1.00$) previous history of hospitalization ($t = .19$, $p < .67$) and frequency of laxative use to purge ($t = .15$, $p < .70$).

T-tests were also conducted on pre-test scores of the treatment and control group for all dependent variables. The means of the pre-test scores between the two groups were not significantly different on binge frequency ($t = 3.67$, $p < .07$), the Hawkins-Clement Binge Scale ($t = 3.46$, $p < .76$), the Rotter Locus of Control ($t = 2.06$, $p < .11$) and the Rosenberg Self-Esteem measure ($t = 2.70$, $p < .11$). Significant differences were noted on means of pre-test scores between groups on purge frequency ($t = 11.38$, $p < .002$) and the Eating Attitudes Test ($t = 8.71$, $p < .007$). The experimental group had a higher frequency of purge episodes and elevated scores on the Eating Attitudes

Table 4. Comparison of means, t-values, and probability values on pre-test scores between treatment and control group.

Variable	Treatment Group N=12	Control Group N=12	t-value	P
Number of binges per week	8.3	5.2	3.67	.07
Number of purges per week	9.6	4.5	11.38	.002*
Eating Attitudes Test	57.8	38.1	8.71	.007*
Hawkins-Clement Binge Scale	19.5	17.3	3.46	.08
Locus of Control	12.5	10.6	2.06	.17
Self-Esteem	29.5	26.3	2.70	.11
Age	25.1	24.9		
Duration of Illness	5.8	5.8	.00	.96

*p < .05 pre-test scores of treatment and control group statistically different.

Table 5. Comparison of percent of total number of subjects, t-values, and probability values on pre-test scores between treatment and control group.

Variable	Treatment Group N=12	Control Group N=12	t-value	P
Laxative Use	41%	50%	.15	.70
Hospitalization during past year	29%	25%	.19	.67
Concurrent Treatment	83% (3.8 months average)	75% (9.1 months average)	1.34	.26
Medication	29%	33%	.00	1.00

Test compared to the controls. Tables 4 and 5 summarize the t-test comparisons of pre-test mean scores for the experimental and control group.

Analysis Related to Hypotheses

Frequency of Binge Episodes

Hypothesis 1: The treatment group will show a greater decrease in the frequency of binge eating episodes than the control group as measured by the Hawkins-Clement Binge Scale and a self-report food diary.

To test hypothesis 1 that the treatment group would show a greater decrease in the frequency of binge episodes than the control group, an ANOVA with repeated measures was done on the dependent variables of binge frequency. A significant time by group effect was found on the self-report measure of binge frequency using daily food diaries $F(2,21) = 4.57, p < .02$. Analysis of the data noted a significant main effect for time, $F(2,21) = 7.00, p < .004$, but no significant main effect for group. A simple main effects analysis indicated that the frequency of binges decreased between Time 1 and Time 3, $F(1,11) = 13.10, p > .004$). Subjects in the treatment group evidenced a significant decrease in the frequency of binge eating episodes. The mean scores for the treatment group taken at Time 1, 2 and 3 were 8.3, 4.8 and 2.2 binge episodes per week. Control group mean binge scores were 5.2, 5.3 and 5.5

for Time 1 through 3, respectively. Figure 1 illustrates the mean scores on binge frequency for both treatment and control groups. Data on individual subjects and binge frequency is located in Appendix P. Table 6 summarizes the mean scores for the treatment and control group at Times 1 and 2. Table 7 summarizes the mean scores and F ratios for the treatment and control groups at Time 1 and Time 3.

A significant time x group effect $F(2,21) = 3.87$, $p < .04$ and main effect for time $F(2,21) = 6.58$, $p < .006$ was noted on the Hawkins-Clement Binge Scale (see Table 7). The main effect for group was not significant. Further analyses of the data indicated that significant difference occurred between Time 2 and Time 3 specifically $F(1,11) = 13.83$, $p < .003$. and between Time 1 and Time 3, $F(1,11) = 15.57$, $p < .002$. A comparison of the pre-test, post-test and follow-up mean scores for the treatment group on the Hawkins-Clement Binge Scale were, in order, 19.5, 18.3 and 14.6. Control group mean scores on the Hawkins-Clement Binge Scale were 17.3, 17.3 and 16.6 for Time 1, 2 and 3.

Analysis of the data indicates that the treatment did effect a decrease in binge frequency. Therefore, the null hypothesis was rejected.

Table 6. Mean Scores for Subjects in the Treatment and Control Groups at Time 1 and Time 2.

Measure	Treatment Group		Control Group	
	Time 1	Time 2	Time 1	Time 2
Number of binges per week	8.3	4.8	5.2	5.3
Number of purges per week	9.6	4.9	4.5	5.0
Eating Attitudes Test	57.8	51.3	38.1	42.1
Hawkins-Clement Binge Scale	19.5	18.3	17.3	17.3
Locus of Control	12.5	11.9	10.6	10.4
Self-Esteem	29.5	25.4	26.3	25.8

Frequency of Purge Episodes

Hypothesis 2: The treatment group will show a greater decrease in the frequency of the purge episodes than the control group as measured by the Hawkins-Clement Binge Scale and a self-report food diary.

Hypothesis 3: Within the treatment group, no difference will exist in binge/purge frequency measured one week and four weeks following treatment.

To test hypothesis 2 that the treatment group would show a greater decrease in the frequency of purge episodes than the control group, an ANOVA with repeated measures was done on dependent variables purge frequency. A significant

time by group effect was found on the self-report measure of purge frequency from daily food diaries $F(2,21) = 9.11$, $p < .001$. A significant main effect for time $F(2,21) = 10.03$, $p < .0009$ was noted, but no significant main effect for group (see Table 7). Analysis of simple main effects indicated significance at Time 1 and Time 2, $F(1,22) = 9.19$, $p < .01$ and Time 1 through Time 3, $F(1,22) = 23.41$, $p < .0005$ (see Table 7).

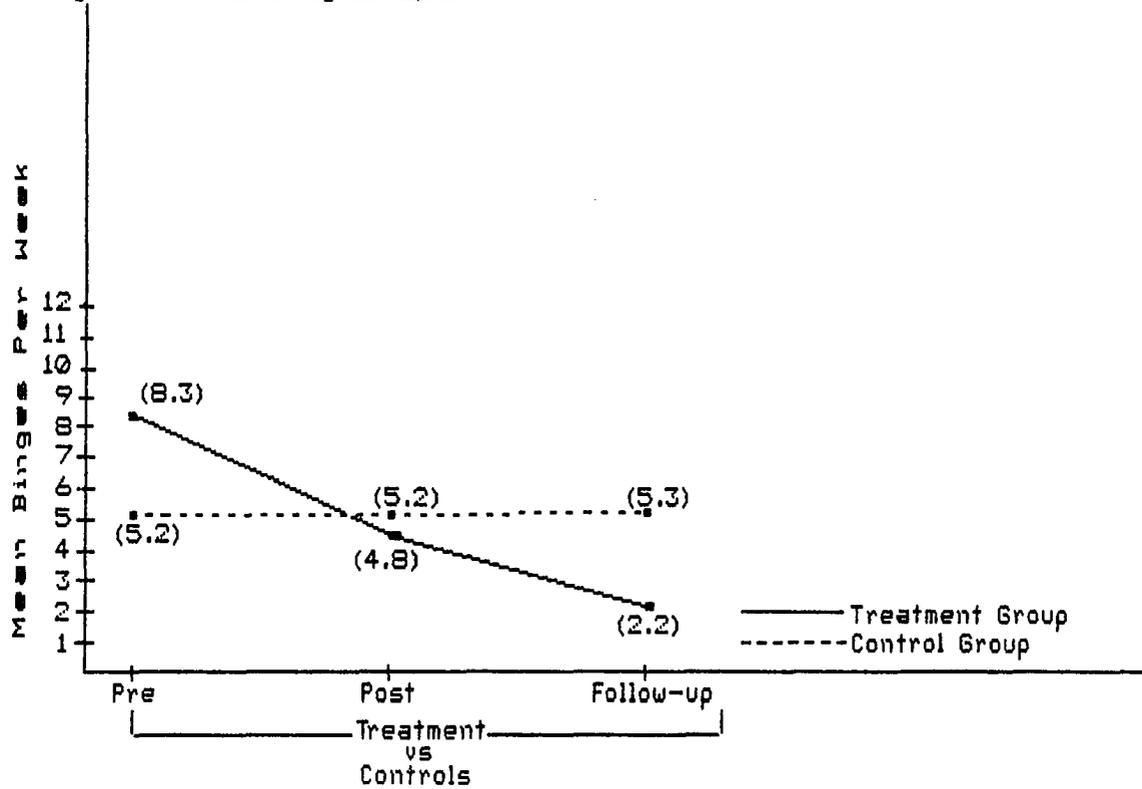
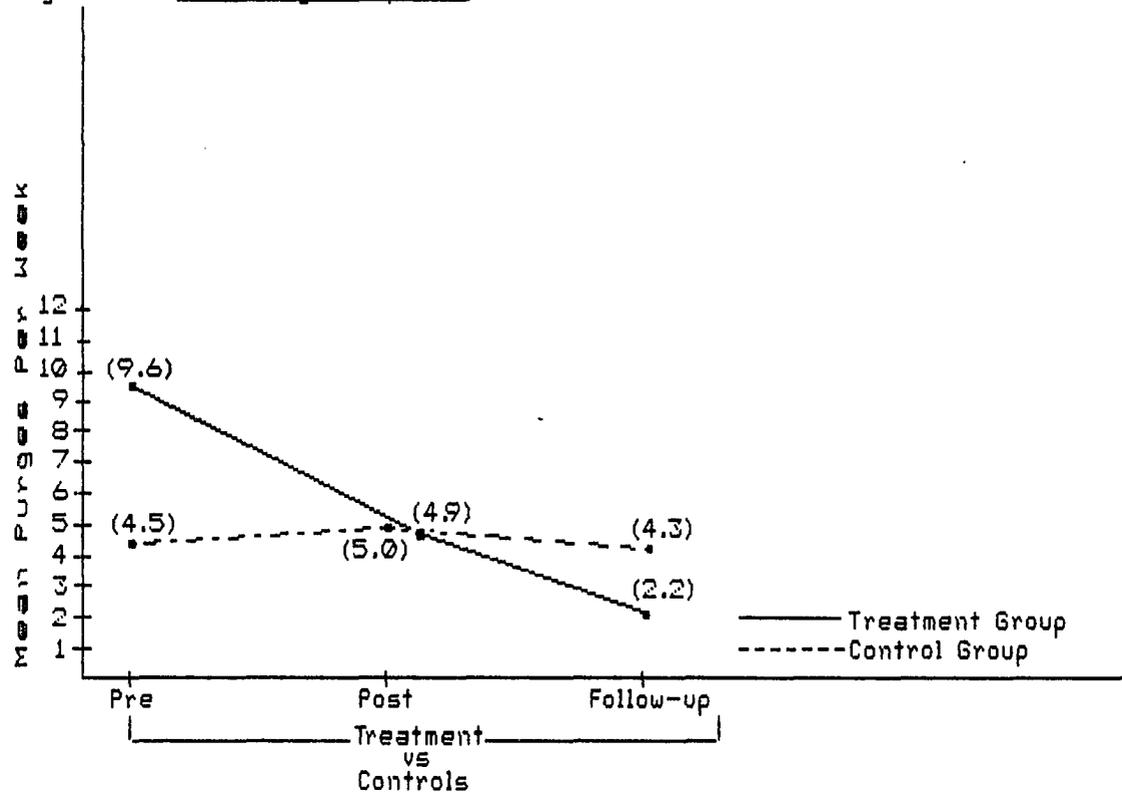
Subjects in the treatment group evidenced a significant decrease in the frequency of purge episodes. The mean scores for the treatment group at Time 1, 2 and 3 were 9.6, 4.9 and 2.5 episodes per week. In order, control group mean purge scores were 4.5, 5.0 and 4.3. Figure 2 illustrates the mean scores on purge frequency for the treatment and control groups. The data supports the hypothesis that the treatment did effect a decrease in frequency of purge episodes. Therefore, null hypothesis 2 was rejected.

The statistical treatment for hypothesis 3 was a simple main effects analysis for the treatment group between Time 2 and Time 3. No significant differences in binge frequency $F(1,11) = 4.41$, $p < .06$, or purge frequency $F(1,11) = 4.21$, $p < .06$ were noted. Analysis of simple main effects for the control group between Time 2 and Time 3 also noted no significant difference in binge frequency

Table 7. Mean Scores for Subjects in the Treatment and Control Groups at Time 1 and Time 3 and F Ratios

Measure	Treatment Group		Control Group		F Ratios (2,21) Time Group	Time x Group	
	Time 1	Time 3	Time 1	Time 3			
Number of binges per week	8.3	2.2	5.2	5.3	.00	7.0 ^a	4.57 ^b
Number of purges per week	9.6	2.5	4.5	4.3	.84	10.03 ^c	9.11 ^c
Eating Attitudes Test	57.8	40.3	38.1	33.4	3.05	8.57 ^a	2.14
Hawkins-Clement Binge Scale	19.5	14.6	17.3	16.6	.13	6.58 ^a	3.87 ^b
Locus of Control	12.5	11.1	10.6	9.8	.98	1.42	.19
Self-Esteem	29.5	23.0	26.3	26.1	.00	10.75 ^c	7.27 ^a

^a_p < .01
^b_p < .05
^c_p < .001

Figure 1 : Mean Binge FrequencyFigure 2 : Mean Purge Frequency

$F(1,11) = .97$, $p < .35$, or purge frequency $F(1,11) = .97$, $p < .35$. Therefore, the null hypothesis predicting differences in binge-purge frequency between Time 2 and Time 3 within the treatment group was rejected.

Eating Attitudes

Hypothesis 4: The treatment group will show greater positive change in pathological eating attitudes than the control group as measured by the Eating Attitudes Test.

The statistical treatment for this hypothesis was an ANOVA with repeated measures on the dependent variable of eating attitudes. A Group x Time ANOVA did not show a significant main effect for treatment on the overall eating attitudes score $F(2,21) = 2.14$, $p < .14$. However, an analysis for time effect showed significance $F(2,21) = 8.57$, $p < .002$. The main effect for group was not significant $F(1,22) = 3.05$, $p < .09$ (see Table 7). Analysis of simple main effects indicated significance between Time 2 and Time 3 $F(1,11) = 6.50$, $p < .02$ between Time 1 and Time 3 $F(1,11) = 9.03$, $p < .01$. Mean scores for the treatment group decreased a total of 17.5 points from a mean score of 57.8 at pre-test to 51.3 (post-test) and 40.3 at follow-up. Control group mean scores at Time 1, 2 and 3 were 38.1, 42.1 and 40.3 (Tables 6 and 7). These results suggest that across time all subjects in the experimental group improved

scores on the Eating Attitudes Test. Therefore, the null hypothesis was rejected.

These results suggest that the treatment group did significantly effect group means over time on the Eating Attitudes Test. Therefore, the null hypothesis was rejected.

Self-Esteem

Hypothesis 5: The treatment group will show greater positive change in self-esteem than the control group as measured by the Rosenberg Self-Esteem Inventory.

To test hypothesis 5 that the treatment group would show a greater positive change in self-esteem than the control group, an ANOVA with repeated measures was used on the dependent variable of self-esteem. A group x time ANOVA did show a significant effect on the self-esteem scores $F(2,21) = 7.27, p < .004$ and a significant main effect for time $F(2,21) = 10.75, p < .0006$. The main effect for group was not significant (Table 7). Simple main effects for the experimental group were noted at Time 1 through Time 2 $F(1,11) = 22.25, p < .0006$ and at Time 1 and 3 $F(1,11) = 11.70, p < .005$. Mean scores for the treatment group at Time 1, 2 and 3 on the Rosenberg Self-Esteem Inventory were 29.5, 25.4 and 23.0, respectively. Control group mean

scores, in order, were 26.3, 25.8 and 26.1 (see Tables 6 and 7). The data suggests that the treatment affected group mean scores on the Rosenberg Self-Esteem Inventory. Therefore, the null hypothesis was rejected.

Locus of Control

Hypothesis 6: The treatment group will show greater increases in internal locus of control than the control group as measured by the Rotter Locus of Control.

To test hypothesis 6 that the treatment group would show greater increases in internal locus of control than the control group, an ANOVA with repeated measures was used on the dependent variable of locus of control. Neither the main effects or interaction were statistically significant (Time, $F(2,21) = 1.42, p < .26$); (Group, $F(1,21) = .98, p < .33$); (Interaction, $F(2,21) = .19, p < .83$). This data is summarized in Table 7. A simple main effects analysis indicated no statistical significance for the treatment groups between Time 1 and 3, $F(1,11)=1.32 p < .28$ or for the control group $F(1,11)= 2.31, p < .16$.

The mean scores for the experimental group at Time 1, 2 and 3 were 12.5, 11.9 and 11.1. Control group mean scores were 10.6, 10.4 and 9.8 at each measurement period. This data is summarized in Tables 6 and 7.

These results indicate that the treatment did not significantly affect group means on the Rotter Internal-External Scale. Therefore, the null hypothesis was accepted.

SUMMARY

The intensive group process retreat treatment for bulimia resulted in significant main effects for group x time interaction in the decreased frequency and severity of both binge and purge episodes and measures of self-esteem. Significant main effects were obtained for within trials on the Hawkins-Clement Binge Scale, the Eating Attitudes Test and the Rosenberg Self-Esteem Inventory. Analysis of the data evidenced significant simple main effects for the experimental group on the Eating Attitudes Test. No significant main effects for group were obtained. Finally, no significant time x group or simple main effects were noted using the Rotter Locus of Control.

CHAPTER V

DISCUSSION

Bulimia, the binge/purge eating disorder, continues to be identified as one of the major health problems currently challenging the medical and mental health professions. Considered to be a "chronic, treatment resistant condition" (Mitchell et al., 1986, p. 449), bulimia has been the focus of inquiry in response to the demand for effective treatment models. This study represents the only controlled evaluation of the intensive group-process model of treatment for bulimia. As such, it serves as a preliminary investigation of a new and innovative direction in this treatment. This chapter will discuss the results achieved by this study and propose directions for future research.

This study examined the effectiveness of a short-term, intensive group process treatment model for bulimia. The two-day treatment and follow-up booster session focused primarily on the interpersonal deficits associated with the disorder. A sample of 24 subjects who met the DSM III criteria for bulimia participated in the study.

The following questions were considered:

Question 1: Does the treatment decrease the frequency of binge/purge as measured by the Hawkins-Clement Binge Scale and a self-report food diary?

Question 2: Does the treatment alter the pathology of eating attitudes as measured by the Eating Attitudes Test?

Question 3: Does the treatment increase self-esteem as measured by the Rosenberg Self-Esteem Inventory?

Question 4: Does the treatment alter locus of control as measured by the Rotter Locus of Control?

Frequency of Binge/Purge Episodes

Significant improvements in the severity of binge eating were noted in this study. The frequency of binge/purge episodes per week were also significantly reduced.

Similar to published reports on group treatments for bulimia, this study documented the effectiveness of an intensive group treatment on self-report measures of binge/purge frequency. Analysis of the results indicate that 3 of 12 subjects (25%) stopped the binge/purge behavior and 10 of 12 subjects (83%) achieved a 50% or greater reduction in binge frequency. The frequency of purge episodes per week was reduced by 50% or more by 9 of 12 subjects (75%). Cessation of bingeing was

related to the cessation of purging in the same 3 subjects. The data for individual subjects' measures of binge/purge frequency is listed in Appendix P. As shown in Figure 1, the mean scores for control group subjects on measures of binge/purge frequency did not change during the four-week period. Specifically, the binge frequency was 5.2 at Time 1 and 5.3 at Time 3; whereas, the purge frequency was 4.5 at Time 1 and 4.3 at Time 3.

While the goal of the intensive group-process treatment was not complete cessation or direct intervention in symptom control, the results achieved by this treatment compare favorably with other studies. Short-term group studies have reported 26% complete cessation (Lee and Rush, 1986), 68% symptom free (Huon and Brown, 1985) and a 90% reduction in binge frequency achieved by 6 of 12 subjects (Wolchik, Weiss and Katzman, 1986). Brisman and Siegel (1986), in a nonexperimental study of the bulimia workshop, noted 33% of 114 subjects had stopped binge/purge behavior and 38% had reduced the frequency of episodes by 50%. Mitchell et al. (1981) noted 47% of 104 subjects symptom free following an intensive, multi-component treatment that lasted two months.

It is important to note that the length and type of treatment, follow-up, population sample, and methodology were different for each study. Compared to other

treatments, the intensive group-process retreat was the shortest in terms of contact hours with a therapist. The results from this study indicate that a multi-component, group process treatment is effective in reducing the frequency of binge/purge behavior.

Self-Esteem

Improvements noted in self-esteem with this study parallel the findings of Wolchik, Weiss and Katzman, 1986. Significant changes as a result of treatment were noted on the Rosenberg Self-Esteem Inventory in both studies. The psychoeducational treatment by Wolchik, Weiss and Katzman, 1986, primarily used information and structured exercises regarding perfectionistic strivings to directly address self-esteem issues in one session. The intensive retreat model focused treatment for self-esteem issues as part of interpersonal learning and group process throughout the workshop. Yates and Sambrailo (1984) also measured changes in self-esteem as an effect of treatment but did not find statistically significant results. It can be concluded that self-esteem increased as a result of the treatment described in this study.

Locus of Control

With regard to measures of locus of control neither the treatment or control group subjects' scores changed

during the one-month measurement period. Several explanations may be inferred for the stability of scores on the Rotter Locus of Control. The Rotter may not have been an appropriately sensitive measure to use in assessing change in a short-term, intensive group treatment. The lack of significant findings suggest that locus of control may be viewed as a fairly stable personality construct that typically may not change following short-term treatment. While issues related to locus of control were addressed in the treatment, the interventions were designed for increasing self-control and personal effectiveness related to daily problem-solving. It is important to note that the Rotter Locus of Control was designed as a "broad gauge instrument" (Rotter, 1975, p. 62) to measure global concepts of locus of control, such as control over political events. As such, the measure may not have adequately recorded changes in locus of control related to mastery of personal problems.

This study has demonstrated the value of a multi-component, intensive, group process-retreat model as an effective adjunct to individual therapy in the treatment of bulimia. The results of this study have important implications for the treatment of eating disorders and for the treatment of addictions in general. The benefits of this type of treatment are that it is a short-term,

moderately priced group in which the threat and stigma of seeking help is reduced. Enrollment in the treatment does not require a physician referral or a commitment to stop the binge/purge cycle. The retreat model serves as an alternative choice for people considering entry into therapy. For clients already in individual treatment, the interpersonal treatment may provide a shift in the focus of treatment. The treatment may function as a catalyst to evoke expectations of recovery. Clearly, the prevalence and heterogeneity of addictive disorders require a variety of effective treatment options.

Further Research

This study served as a preliminary investigation of the effectiveness of the intensive, group-process retreat model for the treatment of bulimia. The limitations inherent in conducting research in private practice settings (i.e. small sample size, self-selection for treatment) with clinical populations restrict the generalizations that can be made to other settings or populations. Generalizations concerning the results of this study must be made carefully given the use of self-report measures and lack of randomization of subjects to treatment or control groups. However, the results can be examined for consideration for future research.

Analysis of the data indicated that the treatment procedures did effect a reduction in binge/purge frequency. Self-esteem scores also increased within the treatment group. Maladaptive eating attitudes improved during the course of the treatment program. These findings suggest that additional research is recommended in areas related to the present study as follows:

1. This study evaluated the effects of treatment using self-report measures of binge/purge frequency and recently developed measures of maladaptive eating. Research is needed on evaluating change resulting from treatment using standardized measurements other than binge/purge frequency (i.e. measures of personal effectiveness, interpersonal relations, and emotional stability). Furthermore, measures in addition to self-report need to be incorporated in eating disorder treatment outcome studies.
2. Follow-up data in this study were reviewed four weeks post treatment. The follow-up period after treatment should be at least six months in order to evaluate the long-term effectiveness of treatment.
3. Replication of this study is needed using a more rigorous design that includes a larger sample, randomized assignment to groups, and a no-treatment control group.

4. Research should focus on the most effective treatment components of this model.
5. Correlates of patient characteristics which may affect response to treatment should be examined. Personality measures should be included as part of the screening procedures for treatment research. Data are needed to substantiate hypotheses concerning effective treatments for a particular client.
6. This study evaluated the effects of a group treatment for bulimia. There is a need to investigate and compare the effectiveness of combined individual and intensive group treatments.

Summary

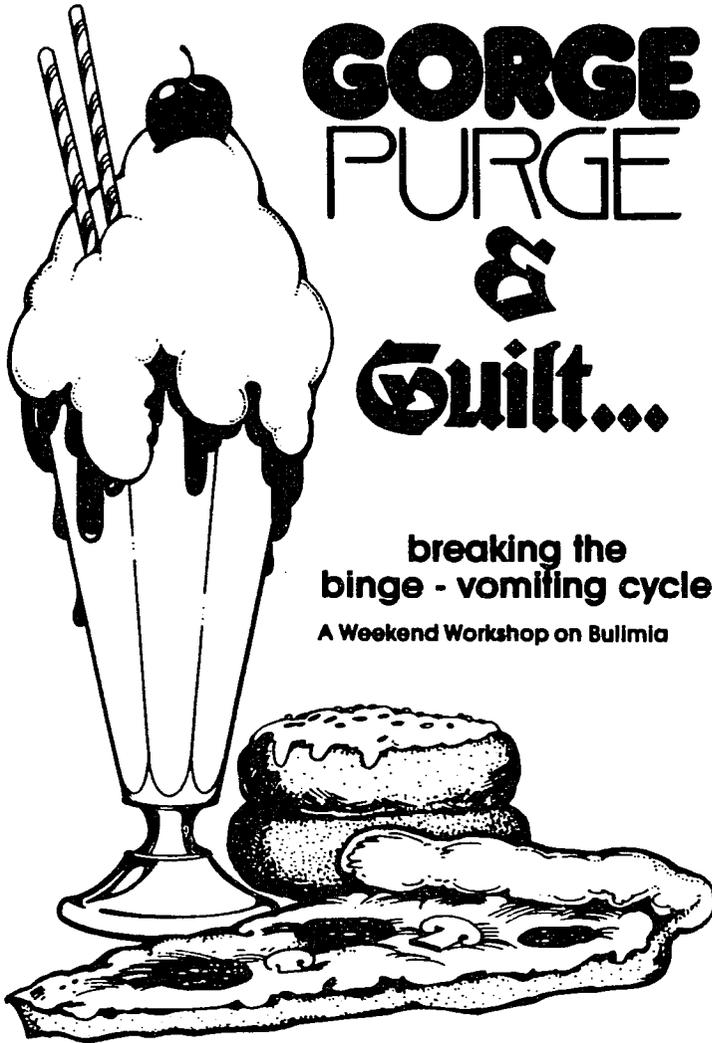
Group treatment complements and amplifies individual treatment issues particularly by breaking the cycle of secrecy, shame and isolation associated with the treatment of eating disorders. It may be argued that the interpersonal treatment described in this study, or some form of group therapy, be considered a necessary and viable component in the treatment of eating disorder clients. The interpersonal process affords the opportunity to create new identities and challenges investments in coping patterns that no longer enhance optimal functioning. According to Nicholas, 1984:

Interpersonal learning in group psychotherapy occurs through powerful emotional experiences that serve to break apart the individuals rigid and limited views of his environment and render him accessible to more expansive possibilities for interaction. Our multifarious assumptions, desires, and fantasies regarding our importance to others, how lovable we are or aren't, and all our ideas about what others mean to us, can give us or expect from us -- all are subject to challenge and reevaluation in group therapy (Nicholas, 1984, p. 70).

The results of this study substantiate the effectiveness of the intensive group-process retreat model for the treatment of bulimia. The multi-component, interpersonal treatment holds promise as a short-term, cost effective, and powerful adjunct to individual psychotherapy. Clients may benefit from the treatment as a "turning point" in developing momentum for change or overcoming bulimic symptoms (Bohanske and Lemberg, 1986). The group treatment is a bend in the river which charts a stronger current of hopefulness. In essence, the journey through shame deserves witness.

APPENDIX A

ADVERTISEMENT BROCHURE FOR BULIMIA WORKSHOP



GORGE PURGE & Guilt...

breaking the
binge - vomiting cycle

A Weekend Workshop on Bulimia

Conducted by:
Jacque Bohanske, A.C.S.W.
& **Ray Lemberg, Ph.D.**
Inquiries: (602) 994-9773

ABOUT THE WORKSHOP:

A weekend workshop for individuals committed to breaking the binge-purge cycle through self-examination and mutual support.

A small group setting will provide opportunities for understanding how others have coped with gorging and purging and exploring psychological issues that contribute to the cycle. Self-esteem and identity, perfectionism, satisfying relationships, and need for control and independence will be addressed. Specific strategies for habit change will also be addressed.

Participants are asked to spend the entire weekend away from family and friends in order to create an impactful environment. Hotel rooms will be shared with other participants on Saturday night to add to the meaning of the experience.

Past workshops have been effective for individuals with long-standing difficulties, individuals at an impasse, and also those who have recently identified the eating problem.

WORKSHOP LEADERS:

Ray Lemberg, Ph. D., clinical psychologist, is in private practice, specializing in the treatment of eating disorders. Formerly, he was Director of Psychology at Camelback Hospitals and Mental Health Center. Dr. Lemberg received his B.A. from the University of Arizona and his M.A. and Ph.D. from the University of Maryland.

Jacque Bohanske, A.C.S.W., clinical social worker, has been providing individual and family therapy in the greater Phoenix area since 1977. She is currently in private practice in Scottsdale, specializing in the treatment of anorexia nervosa and bulimia. Ms. Bohanske holds degrees from the Ohio State University and Arizona State University.

ELIGIBILITY

The workshop is intended only for individuals struggling with the binge-purge (i.e., vomiting or laxatives) cycle. It is not for those who are seriously under-or-overweight.

Each participant will be contacted by telephone or letter to determine whether the workshop will be appropriate to meet the individual's needs.

Registration limited to 14 only.

We reserve the right to cancel in case of insufficient registration.

REGISTRATION:

See enclosed information for dates, location, and registration fee.

APPENDIX B

ADVERTISEMENT LETTER FOR BULIMIA WORKSHOP

ADVERTISEMENT LETTER FOR BULIMIA WORKSHOP

March 27, 1985

Dear

Please find enclosed a brochure describing our Intensive Bulimia Workshop that is held in the Phoenix area quarterly.

It would be greatly appreciated if you could announce this workshop and a similar one for anorexia should you have a provision for the announcement of group services.

Individuals from all over the country have come to our workshop and our preliminary research indicates it has served as a "turning point" for a large percentage of the participants. The workshop is the object of a doctoral dissertation at the present time and we will have a better idea about its impactfulness in the future.

Please run on a regular basis the following announcement:

GORGE, PURGE & GUILT. An Intensive Weekend Workshop-Retreat for Bulimia held at a resort hotel in Scottsdale, Arizona, \$195. For information on this workshop and similar workshops for Anorexia Nervosa, please contact Dr. Ray Lemberg, Eating Disorders Center of Greater Phoenix, 3337 N. Miller Road, Suite 105, Scottsdale Arizona 85251 or call (602) 994-9773.

Thank you.

Sincerely,

Raymond Lemberg, Ph.D., P.C.

RL/j

APPENDIX C

RECRUITMENT LETTER FOR CONTROL GROUP SUBJECTS

RECRUITMENT LETTER FOR CONTROL GROUP SUBJECTS

June 9, 1986

We are writing to request your voluntary participation in a research project. The purpose of the project is to assess the effectiveness of a need to recruit ten people who have not attended the "Gorge, Purge & Guilt" weekend workshop for bulimia sponsored by the Eating Disorders Clinic of Greater Phoenix. Your participation in the study will assist us in learning about the treatment of bulimia. You as a person with an eating disorder can best help us understand these problems. We also believe that you may learn about yourself by completing the questionnaires.

As a volunteer in the study, you will be asked to participate in a 30-minute screening interview. In addition, you will be asked to complete four paper and pencil psychological questionnaires requiring a total time commitment of approximately 30 minutes. The questionnaires will be administered three times: (1) immediately following the initial interview, (1) one week, and (3) four weeks following the initial interview. All data received will be treated with anonymity and confidentiality.

At this point you might be asking "What is in it for me?" All participants in the study who complete the three packets will receive a \$20 stipend. In addition, you may request a meeting with Mary Gendron, the principal investigator, to review the information collected on the surveys.

In the next few days, Mary Gendron will be calling you to see if you are interested in participating in the study. We look forward to talking with you a setting up a convenient time to meet. If you have any questions, or by

Page 2

chance if we were not able to contact you by phone, please call 994-9773 and leave a message regarding your plans to participate in the study.

Sincerely,

Mary Gendron, M.C.

Raymond Lemberg, Ph.D.

Jacquie Bohanske, ACSW

APPENDIX D

INSTRUCTIONS TO SUBJECTS

INSTRUCTIONS TO SUBJECTS

Code number _____

The questions contained in this packet will ask you about your eating patterns and the way you view yourself. Everybody is unique; there are no right or wrong answers. Please answer the questions as honestly as you can. All responses are anonymous.

At the conclusion of the treatment and data collection I will set up an appointment to discuss the results and how they might be helpful to you in your recovery.

Thank you for your cooperation.

Mary Gendron

APPENDIX E

EATING ATTITUDES TEST

PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

Pages 114-115

Pages 117-119

Pages 124-127

Pages 132-135

University
Microfilms
International

300 N. ZEEB RD., ANN ARBOR, MI 48106 (313) 761-4700

APPENDIX F

HAWKINS-CLEMENT BINGE SCALE

APPENDIX G

ROSENBERG SELF-ESTEEM INVENTORY

ROSENBERG SELF-ESTEEM INVENTORY

Directions: Circle the response (1) Strongly Agree through (4) Strongly Disagree that best describes how each statement applies to you.

1. I feel that I am a person of worth, at least on an equal basis with others.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
2. I feel that I have a number of good qualities.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
3. All in all, I am inclined to feel that I am a failure.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
4. I am able to do things as well as most other people.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
5. I feel I do not have much to be proud of.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
6. I take a positive attitude toward myself.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
7. On the whole, I am satisfied with myself.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree

8. I wish I could have more respect for myself.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
9. I certainly feel useless at times.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree
10. At times I think I am no good at all.
(1) Strongly Agree (2) Agree (3) Disagree (4) Strongly Disagree

Rosenberg, M. Conceiving the Self, New York:
Basic Books, 1979.

APPENDIX H

ROTTER INTERNAL-EXTERNAL SCALE

APPENDIX I

FOOD DIARY

FOOD DIARY

May 24, 1986

Dear Workshop Participant:

Please complete the enclosed food diary for the week of May 25 through May 31. Things to keep in mind:

1. Record food consumed during normalized eating (i.e. non-binge).
2. If you define an eating pattern as a binge, check the column marked "binge." Record information regarding time, location, social interaction/feelings in the appropriate boxes. You do not need to record binge food that was consumed, just record that you binged.
3. Follow the instructions listed in item 2 for any purge (i.e. vomiting or laxatives) episode. Record information about type and amount of laxatives used. If you vomit, mark the column with a (V).
4. Code the food diaries with your four-digit code number.
5. Please mail the food diaries with the other questionnaires in the envelope.

Sincerely,

Mary Gendron, M.C.

APPENDIX J

EATING PROBLEMS QUESTIONNAIRE

APPENDIX K
SUBJECT CONSENT FORM

SUBJECT CONSENT FORM

We are requesting your voluntary participation in this study, the objective of which is to assess the effectiveness of the intensive group process retreat model for the treatment of bulimia.

As a participant, you will be asked to participate in a 30-minute screening interview prior to treatment. In addition, you will be asked to complete four paper and pencil psychological questionnaires, requiring a total time commitment of approximately 30 minutes. The questionnaires will be administered three times: 1) immediately following the initial interview, 2) one week following the interview, and 3) four weeks following the interview. In addition, you will be asked to keep an eating and binge/purge frequency diary for one-week periods at each of the three data collection periods. Your name will not be associated with any of the questionnaires and will be known only to the primary investigator of this project. All data received will be treated with anonymity and confidentiality. The data packets will be coded with a four digit number by you so that no name appears on the forms. You are free to withdraw from the study at any time without incurring ill will.

I have read the above "Subject's Consent." The nature, demands, risks and benefits of the project have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without incurring ill will. A copy of this consent form will be given to me.

Subject's Signature _____ Date _____

Witness _____ Date _____

APPENDIX L

BULIMIA QUESTIONNAIRE

BULIMIA QUESTIONNAIRE

DATE: _____

CODE: _____

INSTRUCTIONS:

Please complete the following questions and bring to the workshop. At the end of the workshop we will collect these to learn more about bulimia and to contact you in six months to see how you have changed so that we may judge the effectiveness of the workshop. Do not give your name, however, please give the last four digits of your social security number in the above space labeled "code" so that we may rate your degree of change while keeping the information anonymous.

Thank you for your cooperation.

1. How long have you been bingeing and purging? _____
2. How old were you when it started? _____ current age _____
3. How did you learn about this technique? _____

4. Circumstances surrounding first purging episode. _____

5. Do you purge by: (circle any that apply) vomiting, laxatives,
diuretics, other(s)? _____

6. Other weight control techniques you have tried: (circle) diet pills or speed, fasting, over-exercise, diets, Weight Watchers, Overeaters Anonymous, hypnosis, other(s). _____
7. Current weight control techniques: (circle) diet pills or speed, fasting, over-exercise, diets, Weight Watchers, Overeaters Anonymous, hypnosis, other(s). _____
8. How many times per day or per week do you currently binge (on the average)? _____/day or _____/week.
9. What is the most you have binged during a given day? _____
10. On what kinds of food do you usually binge? _____

11. Compared with other times, how severe a problem is your bingeing now? (circle one): much worse, worse, same, improved, greatly improved.
12. What is your current height? _____ Weight? _____
Desired weight? _____
13. Have you ever been: (circle if it applies) overweight? underweight?
14. What has been your highest weight? _____ At what age? _____
Lowest weight? _____ At what age? _____
15. Have you had any of the following medical conditions as a result of your problems with eating? (circle) loss of period, irregular period, dizziness or fainting, constipation, burning in throat, frequent stomach pain, tooth decay, other(s) _____

16. List any medications you are currently taking. (Please indicate dosage and frequency)_____
- _____
17. Describe any alcohol and/or drug use (frequency and amounts).
- _____
- _____
18. Have alcohol/drugs ever been a problem for you?_____
- If so, in what ways? (e.g., interfere with relationships, work, legal problems, etc.)_____
- _____
19. Any history of alcohol/drug problems with significant others? (please circle and describe briefly) mother, father, stepmother, stepfather, brother(s), sister(s), spouse, boyfriend, other(s).
- _____
- _____
20. Any problems with compulsive stealing or shoplifting?_____
- If yes, please describe (mainly list types of items, frequency, etc., not exact locations)._____
- _____
21. With whom are you currently living?_____

22. Are you currently in an intimate relationship? _____

If so, is it satisfactory? (please explain). _____

23. Please provide the following background information:

Sex: _____

Marital Status: _____

Years of School Completed: _____

Employed: (circle) Yes No

APPENDIX M

STRATEGIES FOR BREAKING THE BULIMIC CYCLE

STRATEGIES FOR BREAKING THE BULIMIC CYCLE

HABIT CHANGE INSTRUCTIONS

NORMALIZE EATING

1. Replace the concept of dieting with eating plan.
2. Avoid psychological deprivation.
3. Avoid physiological deprivation leading to low blood sugar and ultimately bingeing.
4. Develop normal hunger cues first by eating by the clock and then later beginning to recognize true hunger.
5. For some, preplanned meals for the next day.
6. Recognize the importance of adequate protein and complex carbohydrates in the diet along with fat. Research has shown the complex carbohydrates can actually head off a binge.
7. Learn to enjoy food and eating. Add favorite foods back into the diet and eat slowly, learning to taste food again.
8. Give yourself a half an hour to at least an hour to obtain sensation of fullness. After eating, take a walk or engage in another activity before eating again so that you have time to experience fullness.
9. For the time being, avoid highest-temptation foods or panic foods.
10. Slowly reintroduce panic foods into diet.

ELIMINATING RELIANCE ON THE SCALE

1. Recognize that it is degrading to have a number determine whether you are "okay" or "not okay".
-

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2. Recognize that weight normally fluctuates by 1 to 4 pounds per day and has little to do with real changes in flesh weight.
3. Avoid adjusting diet based on a daily weight, as dieting will lower the metabolic rate which, in turn, will make it easier to gain weight and lead to more dieting.
4. Weigh no more than one to two times a week and preferably not even that.
5. Put the scale in an out-of-the-way place such as a closet or trunk of a car so that it will not cue you to step on it.

CHANGING THE BINGE HABIT

1. If you are truly at the point of tackling the desire to binge and taking responsibility, use the following instructions. Otherwise, put these away until a time when you can use these tools for change.
2. Rearrange your eating environment to gain optimal stimulus control so that you are not cued to binge.
3. Self-contract to avoid eating in an automobile altogether.
4. At home, rearrange the kitchen and the binge eating area including the cupboards and refrigerators.
5. Alter the cooking patterns to your benefit, including desirably foods and excluding panic foods.
7. Monitor the urge to binge and identify what emotions you are feeling and what you are needing at the present time.
8. If you are truly hungry or desiring food, identify acceptable snacks or treats and do not relabel them as binge food.

Page 3

9. In order to identify "binge-triggers" you may first have to identify the trigger after a binge before you come to be able to identify the emotional state or unmet need prior to the binge.
10. After you make the desired binge conscious, wait at least 20 minutes and engage in an alternate activity to meet your emotional needs.
11. Construct an activity list that has activities for both relaxation and boredom that can be engaged in on the spur of the moment and that are "wants" and not "shoulds".
12. If you have engaged in an activity and still have a strong urge to binge, then make a conscious choice to binge. Never deprive yourself of the choice.
13. If you do binge, choose a binge place and do nothing else in that place. Make this place different from where you normally would eat.
14. Slowly lengthen the time between the desire to binge and the binge itself.

CHANGING THE PURGE HABIT

1. Perhaps the most important change you can accomplish is to take responsibility after bingeing and to not purge.
2. Utilize one of two methods, either "cold turkey" or slowly lengthen the time between the binge and the purge from five minutes to ten minutes, etc.
3. Throw away laxatives as they are deadly and are least efficient for weight loss.
4. Once you are not purging, you will also begin to take responsibility over the frequency and the quantity of the binge.

CAUTIONS

1. These tools are very effective in breaking the binge/purge cycle.

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2. However, habit change is only one part of the process of recovery.
3. Change the way you organize your life from issues of control, weight, and food concerns.
4. Reorganize life around meaningful personal goals and interpersonal intimacy.
5. Change thought patterns away from perfectionism, all-or-none thinking and avoidance of conflict.
6. Examine personal needs and be able to assert yourself to meet them without overly accommodating to the needs of others.

APPENDIX N

WORKSHOP EVALUATION

WORKSHOP EVALUATION

This evaluation is to help us learn what your feelings are about the weekend workshop. We would like you to respond as honestly as possible in order to help us plan for future workshops. Rate the statements on the following scale: 1=strongly disagree, 2=disagree, 3=no opinion, 4=agree, 5=strongly agree. Please add any comments and/or recommendations which might be helpful. Do not put your name on the evaluation form.

Thank you.

- (Circle One)
1. The workshop was relevant to my personal needs. 1 2 3 4 5
 2. The workshop met my overall expectations. 1 2 3 4 5
 3. I learned more about myself and the role food plays in my life through the workshop. 1 2 3 4 5
 4. The workshop provided information which is of personal value to me. 1 2 3 4 5
 5. The facilitators were knowledgeable in the material they presented. 1 2 3 4 5
 6. The facilitators were well organized in the presentation of their materials. 1 2 3 4 5
 7. The facilitators were responsive to my specific needs. 1 2 3 4 5
 8. I found the feedback exercise to be useful. 1 2 3 4 5
 9. The setting was pleasant and provided me with an atmosphere for self-growth. 1 2 3 4 5
 10. The length of time of the workshop was adequate for my needs. (How long would you like the workshop to be? ____ days.) 1 2 3 4 5
 11. It was useful to be with other dealing with similar issues. 1 2 3 4 5

Page 2

12. I would recommend this kind of workshop to other people with eating disorders. 1 2 3 4 5

13. What did you like most/least about the workshop? _____

14. How did you like the weekend format? Did you feel it was useful/not useful to be together for the entire weekend, including Saturday evening? _____

15. Additional comments: _____

We may want to contact participants in the future for follow-up to see how you are doing. If you agree to this, please sign below and check how you would like to be contacted. Remove this portion and return to us separately.

I agree to be contacted for follow-up purposes by:

Please check: Mail or Phone _____; Mail only _____;
Phone only _____

Signed: _____ Date _____

Address: _____

Phone: _____

APPENDIX O

BULIMAREXIA WORKSHOP QUESTIONNAIRE

BULIMAREXIA WORKSHOP QUESTIONNAIRE

1. Please estimate the overall quality of your emotional life as compared to 6 months ago just prior to the workshop. Place an X in the appropriate space.

_____	_____	_____	_____	_____
Much Worse	Somewhat Worse	Same	Somewhat Improved	Much Improved

2. Please estimate change in the gorge-purge cycle since the workshop.

_____	_____	_____	_____	_____
Much Worse	Somewhat Worse	Same	Somewhat Improved	Much Improved

3. How often do you gorge and/or purge _____ or _____ week?

4. How often do you find yourself obsessed with food or weight?

_____ Every day _____ 4-5 times/week _____ 2-3 times/week
 _____ 1 time/week _____ Less than once/week

5. How helpful to you was the workshop?

_____	_____	_____	_____	_____
Not at All	A Little	Moderately	Helpful	Very Helpful

6. In what respects did the workshop affect your current functioning?

7. Your comments/suggestions would be greatly appreciated.

APPENDIX P

WEEKLY BINGES AND PURGES FOR WOMEN IN THE TREATMENT GROUP AT
PRE TREATMENT, POST TREATMENT AND FOLLOW-UP

APPENDIX P

WEEKLY BINGES AND PURGES FOR WOMEN IN THE TREATMENT GROUP AT
PRE TREATMENT, POST TREATMENT AND FOLLOW-UP

<u>Subject</u>	<u>Binges</u>					<u>Purges</u>				
	Number Per Week			Reduction in Frequency		Number Per Week			Reduction in Frequency	
	Pre	Post	FU	Pre-Po	Pre-FU	Pre	Post	FU		
1	14	9	6	36%	57%	12	9	6	25%	50%
*2	7	3		58%	---	7	3		58%	---
*3	14	12		19%	---	14	12		19%	---
4	18	0	0	100%	100%	18	0	0	100%	100%
5	6	0	0	100%	100%	7	0	0	100%	100%
6	14	4	9	72%	36%	14	7	9	50%	36%
7	14	14	1	0%	93%	14	14	1	0%	93%
8	6	9	2	-50%	67%	6	4	2	33%	66%
9	4	4	2	0%	50%	4	4	3	0%	25%
10	3	3	1	0%	67%	3	3	3	-0-	-0-
11	5	3	1	40%	80%	5	3	1	40%	80%
12	4	6	3	-50%	25%	7	3	0	57%	100%
13	14	6	1	57%	93%	14	12	6	14%	58%
14	7	0	0	100%	100%	11	0	0	100%	100%

*Note: Subjects 2 and 3 did not complete follow-up packet

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