ANALYSIS OF A COGNITIVELY ORIENTED SELF-MANAGEMENT WEIGHT CONTROL PROGRAM USING AN INTENSIVE CASE STUDY WITHDRAWAL DESIGN

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This is to certify that the

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ABSTRACT

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By

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Weight control research strongly suggests that among the various procedures used, self-management appears to be the most promising. Self-management procedures, however, are not as effective as is desired since weight loss relapses or stabilizes in the absence of treatment. Until recently, self-management approaches to weight control were based totally on an operant conditioning model. The self-management treatment packages might be more powerful if they combined the relevant aspects of the operant model with a cognitive model. The cognitive model emphasizes the role of covert speech (self-statements) in self-control. Behavior change is facilitated by modifying what clients say to themselves.

The purpose of this study was two-fold: (a) to evaluate the short-term effectiveness of a combined model of self-management for weight control which stressed cognitive concepts, and (b) to identify potentially relevant client variables that might be related to the success or failure of the clients to implement the treatment package. Twelve clients who fulfilled the selection criteria were included in the study. An intensive case study withdrawal design was used. The

study was divided into five phases which include baseline, two treatment phases and two withdrawal-of-treatment periods. The two treatment phases and two withdrawal phases were five weeks each. During each treatment phase the clients met individually with their counselor once per week for one hour. A total of 10 treatment sessions was held. During each withdrawal phase no contact between clients and their counselors occurred. If the self-management procedures were effective, clients should be able to lose a meaningful amount of weight during two withdrawal phases, as well as during two treatment phases. The withdrawal phases are the most critical periods since clients are learning to control their own behavior in the absence of a counselor.

A self-management treatment package was developed that stressed the cognitive model. The treatment package emphasized the following concepts: (a) self-management; (b) model of eating behavior; (c) model of self-statements; (d) realistic weight loss and activity goals; (e) motivation to change; (f) well-balanced, nutritionally sound diet; (g) situational strategies; (h) A-B-C model of behavior; (i) eating as a choice; and (j) self-instruction.

Results of this study did not support the efficacy of the self-management treatment package to produce meaningful weight loss in the absence of a counselor. Meaningful weight loss was defined as a minimum of five-pound or 2 1/2% weight reduction during each five-week phase. Only two clients lost five or more pounds (or 2 1/2% body weight) during the first withdrawal phase, and none of them lost five or more pounds (or 2 1/2% body weight) during the second withdrawal phase.

However, some encouraging results were noted. Eight clients lost weight over the total program, and five clients lost 10 or more pounds. Six clients lost three or more pounds during at least one of the withdrawal phases.

The clients varied considerably in their responsiveness to the self-management weight control program, which suggests that client variables were important. It was the opinion of the researcher from observing these clients over a 20-week period that several variables were important in their success or failure. Client variables can be classified as follows: (a) motivation, (b) emotional stability, (c) reasons for wanting to lose weight, (d) cognitive set to fail, (e) understanding and implementing the treatment concepts, and (f) personal organization and record-keeping. These client variables might be helpful in planning future research efforts.

Implications for the treatment of obesity and for self-management weight control programs were discussed, as well as suggestions for future research efforts.

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By

Randall Dean Gold

A DISSERTATION

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DEDICATION

This dissertation is dedicated to

my mother and brother
who are always available for support
and
my father
who died before its completion

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CHAPTER 1

INTRODUCTION AND REVIEW OF THE LITERATURE

Purpose and Rationale

Self-management procedures, to date, have shown considerable potential for the treatment of obesity, but they fall far short of being an ideal treatment package. Typically, self-management procedures produce weight loss during the treatment phase, but during follow-up periods the weight loss seems either not to continue or may even relapse. A potent self-management package that will be useful to the person over an extended period of time, after the contact with the counselor has ended, needs to be developed.

Most self-management procedures for weight control are based on an operant conditioning model which emphasizes stimulus control, self-monitoring, self-reward, and self-punishment. Recently, self-management treatment packages for weight control have been developed which stress a combination of an operant model and a cognitive model. The cognitive model focuses on what people say to themselves and the role of these self-statements in eating behavior and weight control. The operant model and cognitive model each have unique contributions for self-management which may complement each other. Consequently, a combined self-management treatment package may be more powerful in allowing people to lose weight and to keep the weight off once formal

treatment is over. To date, little research has been reported concerning the effectiveness of an operant and cognitive model of self-management for weight control.

This study will involve an investigation of the short-term effectiveness of a combined self-management treatment package which stresses the cognitive approaches but also includes concepts from the operant model. The study is designed to determine how effectively clients can lose weight in the absence of a counselor, which is the ultimate goal of self-management. Treatment will take place in two five-week phases with a five-week withdrawal of treatment following each phase. During each withdrawal phase, the clients will have no contact with the counselors. If the self-management procedures are effective, then the clients should be able to continue losing weight on their own.

Also, this study will attempt to identify potentially relevant, client variables that will influence the effectiveness of self-management procedures. Very little research has been done which attempts to isolate client variables that are related to success or failure in self-management weight control programs. Clients will vary considerably in their responsiveness to self-management weight control procedures, which suggests that client variables are very important. In order to understand how client variables influence weight loss variability, a factor must first be identified and then actively manipulated in a controlled setting. Most research in this area has not identified the important factors in the client variables. In this study, through an intensive case design, an attempt will be made to identify some client variables that may contribute to the success or failure of

a self-management program.

Definition of Self-Management

All reinforcement paradigms are comprised of two discrete elements or organisms (Premack & Anglin, 1973). One person is the reinforcer or punisher, whose action is contingent on a second person performing some behavior. Premack and Anglin hypothesize that a process called internalization or socialization consists of the supervisoral organism being put into the performing organism. Through this process, one organism can now check, restrain, or reward itself in a way that duplicates the powers that would ordinarily come from the second organism. In general, every operation that goes on at the level of two people could also be arranged with one person (self-reward, self-punishment, self-extinction, etc.). If it is true that all classic two-organism processes can be duplicated in one organism, this would have powerful, far-reaching implications.

Researchers have used numerous definitions of self-management which contain very similar ideas (Cautela, 1969; Goldfried & Merbaum, 1973; Kanfer, 1975; Thoresen & Mahoney, 1974). Most definitions of self-management include the following ideas: (a) the client is the agent of his/her own behavior change, and this change is based on a conscious decision; (b) self-control involves the change in the probability of behavior when there are conflicting alternatives available; (c) the immediate consequence of the self-controlled behavior is less pleasant than the alternatives; (d) there is an absence of immediate external controls operating on the person; (e) self-control is not a global personality trait, but a specific response; and (f)

self-control can be facilitated through the learning process.

The labeling of a piece of behavior as "self-control" has the same problems as labeling behavior as abnormal, mentally ill, or healthy (Thoresen & Mahoney, 1974). The difference between "self-control" and "non-self-control" is not qualitative. Rather, it is embedded in the social context in which the behavior is displayed and in how obvious the external influences are. Also, behavior that is socially desirable is more likely to be labeled as self-control than an undesirable behavior.

Thoresen and Mahoney (1974) reject the idea of a dichotomy of self-control versus external control of behavior. They would rather think of a continuum classification and speak of various degrees of self-control. Any behavior can be classified in relative terms of internal and external control.

For purposes of simplification the term "self-management" as used in this paper, will denote any response made by individuals to change or maintain their own behavior (Jeffrey, in press).

Models of Self-Management

Behavioral models of self-management have considerable appeal since they complement the humanistic concerns of freedom to change as one desires and of mastering one's environment. Individuals are seen as active agents who influence their environment and take full responsibility for their own actions and treatment. It is maintained that self-management techniques allow individuals to maintain their behavioral changes in the absence of the counselor better than more traditional approaches. Also, it is maintained that self-management

procedures are more efficient than other techniques, since clients conduct much of their treatment on their own in the natural setting. This avoids some of the generalization and maintenance problems of counselor-centered techniques (Jeffrey, in press).

The behavioral models of self-management can be separated into two basic categories. In the first category, operant conditioning is utilized as a primary underlying assumption. The operant conditioning models are the most numerous (Kanfer, 1975; Premack & Anglin, 1973; Thoresen & Mahoney, 1974; Watson & Tharp, 1972). In the second category, the underlying assumption is the congitive approach as conceptualized by Ellis (1962, 1973) in his development of rational-emotive therapy. Mahoney (1974), Meichenbaum (1974, 1975; Meichenbaum & Cameron, 1974), and Goldfried and Goldfried (1975; Goldfried, Decenteceo, & Weinberg, 1974) have been the leaders in developing a cognitive self-management model.

Both models of self-management make a distinction between the "controlled response" (CR) and the "self-controlling response" (SCR). The CR is the target behavior that the client wishes to change, whereas the SCR is the act that is necessary to bring about the change. Both the CR and SCR are learned behaviors.

Self-management always involves the increasing or decreasing of one or more behaviors. In accelerative self-control, the CR has immediate negative or aversive elements, but its long-term consequences are positive. For example, physical exercise may be unpleasant as one is going through it, but its delayed consequences--such as better health, more energy, and the loss of weight--may be very positive. In decelerative self-control, the CR usually has positive immediate

effects but aversive long-term effects. For example, overeating and alcoholism are immediately satisfying, but their delayed consequences are debilitating. The greater the difference between the immediate effects of the CR and the long-term effects, the more difficult it will be to produce the SCRs.

Operant model. Thoresen and Mahoney's (1974; Mahoney & Thoresen, 1974) model of self-management will be summarized below since it is the most complete one based on operant conditioning principles. This model emphasizes the interdependence between one's environment and his/her behavior. Behavior is not only a function of one's environment which can be manipulated by others, but also, the environment is a function of one's behavior. Individuals can alter their environment in ways which will change their behavior and, consequently, become active agents in their own behavior change. The act (SCR) of manipulating the environment in order to facilitate behavior change is a learned response which must be rewarded, like any other behavior, in order to be maintained.

The operant model of self-management maintains that some antecedent or initiating stimulus (cue) precede the controlled response (undesired behavior). For example, the sight or smell of cookies may be a cue for between-meal snacking, or the feeling of anxiety may be a cue to open the refrigerator and eat. In long-standing habits which have seemingly become automatic, the antecedent cue may either be no longer present or unspecified. For example, habitual smokers may unconsciously light-up a cigarette without any awareness of an antecedent cue.

When the relationship between the antecedent cue and the controlled response (CR) is explicit, the individual can make a conscious decision which may modify the CR by various self-controlling responses (SCR). This model provides for two basic self-management strategies. The first involves environmental planning (stimulus control); the person alters the antecedent stimuli that seem to elicit the target behaviors (CR and SCR). The second strategy is behavioral programming, which involves self-administered reward or punishment contingent upon some designated behavior. Most applications of self-management involve a complex combination of the two strategies.

Environmental planning strategies have been used successfully with many self-management problems such as obesity (Stuart & Davis, 1972), developing appropriate study skills (Beneke & Harris, 1972), and smoking (Roberts, 1969). They can involve changing the cues or eliminating and avoiding them. Environmental planning strategies can also include the prearrangement of behavioral consequences. Such arrangements may involve contingency contracting with others for rewards or punishments for some specificied behaviors.

Behavioral programming involves self-administered consequences that follow either the CR or the SCR. This procedure may include self-observation, positive and negative self-reward, and positive and negative self-punishment. Behavioral programming can involve verbal symbolic self-praise or self-criticism, as well as presenting him/herself with tangible consequences after a specified behavior.

Symbolic mediating factors should not be overlooked, since the payoffs for many self-control efforts are greatly delayed (Thoresen & Mahoney, 1974). Thought processes are an important factor in mediating

between the stimulus and the response (Bandura, 1971).

Cognitive model. The cognitive model of self-management has its roots in the rationale and procedures of "Rational-Emotive Psychotherapy" (RET), which was developed by Ellis (1962, 1973). RET assumes that when a person experiences self-defeating behavior and inappropriate emotions such as guilt, depression, frustration, or anxiety, it is because of maladaptive, irrational thoughts. Psychological problems arise from misperceptions and mistaken cognitions about events. A person's emotional reactions and behavior are caused by conscious and unconscious evaluations, interpretations and philosophies.

Ellis symbolizes his approach by an A-B-C-D-E sequence. "A" refers to some environmental event; "B" represents the person's belief system about "A," which is symbolized by self-statements and implicit sets of premises; and "C" refers to the behavioral consequence of "A" and "B." If "B" represents a rational, realistic set of beliefs about "A," then the person will behave in a rational and reasonable manner. But if "B" represents an irrational, unrealistic set of beliefs about "A," then the person will react with maladaptive emotions and behavior. "D" represents the therapeutic intervention of actively disputing the irrational beliefs of the client. This is the point where the counselor has the greatest impact. Ellis (1973, p. 60) states that:

> ...the therapist actively demonstrates to the client how, every time he experiences a dysfunctional emotion or behavior or CONSEQUENCE, at point C, it only indirectly stems from some ACTIVITY or AGENT that may be occurring (or about to occur) in his life, at point A, and it much more directly results from his interpretations, philosophies, attitudes, or BELIEFS, at point B.

The emphasis in RET is on the person learning how to dispute ("D") his/her own irrational beliefs. "E" represents the beneficial effects of disputing the irrational beliefs.

Operating from the basic assumption of RET that emotional arousal and maladaptive behaviors are caused by one's self-statements about the situation, Goldfried and Goldfried (1975) have attempted to systematize Ellis' therapeutic approach within a general behavioral framework. Their approach provides clear, delineated steps that the therapist might take in training the client to modify the irrational belief system. Their approach is called systematic rational restructuring. Rational restructuring involves four steps: (a) presentation of the rationale, (b) an overview of irrational assumptions, (c) an analysis of the client's problem in rational terms, and (d) teaching the client to modify the statements he/she makes to him/herself (Goldfried, Decenteceo, & Weinberg, 1974).

The individual's covert speech plays a major self-regulatory role, and people can develop self-control by learning to change what they say to themselves (Meichenbaum, 1974, 1975). It is not the environmental consequences of one's behavior that are the most important, but what a person says to him/herself about those consequences (Meichenbaum & Cameron, 1974).

Meichenbaum (1974, 1975) has developed a self-instructional training method as a means of modifying clients' self-statements, which, in turn, mediate behavior change. The primary emphasis of self-instruction training is that the counselor helps the client explore and become aware of negative self-statements which lead to self-defeating behavior, and to modify these self-statements in order to produce new, more

adaptive behavior. Mahoney (1974) refers to this process as cognitive ecology--a cleaning up what you say to yourself.

Meichenbaum's (1975) self-instructional methods involve three phases. Phase 1 is called the educational phase or conceptualization of the problem. This phase is designed to provide the client with an explanatory scheme for understanding his/her behavior. It is important that the conceptual framework have face validity or an air of plausibility for the client, and acceptance of it should naturally lead to the practice of specific, cognitive and overt, coping behaviors.

Phase 2 is called the rehearsal or "trying on" phase. The clients listen to their self-statements and identify the self-defeating ones. Then, the client's maladaptive behaviors, thoughts, and feelings become a cue to employ the coping technique that is learned and practiced in therapy. Meichenbaum has shown that a person's self-statements can be modified in the following ways: (a) by modeling appropriate self-statements and behavior, (b) by having the person cope with the problem by means of self-instruction during desensitization, (c) by having the person cognitively rehearse self-instruction, and (d) by pairing the expression of coping self-instruction with shock offset.

Phase 3 is the application phase. Once the client has become proficient in employing the new cognitive coping skills in the therapy session, the client is instructed to try out and practice these skills in the real situation.

Considerable empirical evidence supports the value of this therapeutic approach (Meichenbaum, 1974, 1975). Self-instruction has been used successfully with impulsive children, with text-anxious college students, in creativity training, with snake-phobic clients, and in

reducing smoking behavior. These preliminary research findings suggest that significant behavioral changes can be produced by the cognitive approach with greater generalization and persistence of treatment effects than other methods. Cognitive self-control training could influence the cognitive styles and strategies that people use in various problem situations.

Mischel and Ebbesen (1970) and Mischel, Ebbesen, and Zeiss (1972) have demonstrated how cognitive and attentional processes can determine voluntary delay of gratification in preschool children. An experimental situation was arranged where preschool children could obtain a less preferred reward immediately or continue waiting indefinitely for a more preferred, but delayed reward. Several experiments were performed to determine which factors influence delay of gratification. It was found that children would wait much longer for a preferred reward when they were distracted from the rewards than when they attended to them directly. But it was also found that only certain cognitive events served as effective ideational distractors. When the children were instructed to think about the rewards themselves or to think "sad thoughts," they could only delay gratification for a short period of time. When the children were instructed to think "fun things," they could delay gratification for long periods of time. Thinking about the rewards resulted in an average delay of less than one minute, whereas thinking "fun things" produced an average delay of almost 15 minutes. When the children could see the reward objects, they could not delay gratification for very long. It is maintained that seeing or thinking about the rewards increases one's frustrations, which makes it difficult to continue the delay. The

implications of these studies suggest that effective delay of gratification depends on cognitive and overt self-distractions in order to reduce the frustration. Any condition which will shift a person's attention from the reward object seems to facilitate voluntary delay, which could have important implications for self-management.

The use of self-instruction in the resistance to temptation was further studied by Patterson and Mischel (1975, 1976). They explored the issue of the ability to maintain attention to a central task and to resist distraction. This ability could be crucial in many kinds of self-control situations. In their study, preschool children were offered attractive incentives for completing a long, repetitive task, and they were also warned that a "Clown Box" might tempt them to stop working. The experimenter suggested to some of the children that they employ one or more cognitive or self-instructional plans. The dependent variable assessed each child's success in resisting the "Clown Box" temptation in order to continue working.

The results indicated that the children who had received the self-instructional plans were more successful in resisting temptation in order to continue working than the children who did not receive the self-instructional plans. Also, it was found that a temptation-inhibiting self-instructional plan (e.g., "I'm not going to look at Mr. Clown Box") was more effective in facilitating the children's self-control than a task-facilitating self-instructional plan (e.g., "I'm going to look at my work"). These findings suggest that a self-instructional plan is a useful cognitive process that leads to successful resistance to temptation but that its efficacy may depend on its specific content.

In another study, the effects of self-instructional training in 5 to 6 year-old children in relation to fear of the dark were examined (Kanfer, Karoly, & Newman, 1975). Children were trained with one of three types of self-instruction: (a) the competence group, which included sentences emphasizing the child's active control or competence (e.g., "I am a brave boy/girl. I can take care of myself in the dark"); (b) the stimulus group, which included sentences intended to reduce the aversive qualities of the stimulus situation (e.g., "The dark is a fun place to be. There are many good things in the dark"); and (c) the neutral group, which included sentences that were not relevant to the situation (e.g., "Mary had a little lamb. Its fleece was white as snow"). The children were trained in a well-lit room. Then each child was placed in total darkness and remained there until he/she decided to increase the illumination. The duration of tolerance of darkness was measured. The results indicated that the competence self-instructional group was superior to the stimulus group and the neutral group. These findings are consistent with those of Patterson and Mischel (1976) and suggest that the effectiveness of self-instructional training is related to the specific content of the learned sentences.

These recent studies strongly suggest that what people say to themselves makes a difference in their behavior where delay of gratification and resistance to temptation are concerned. These two areas are very important in the development of self-control. People are constantly thinking, and cognitions exert a powerful influence on one's behavior and emotions.

Combination of the two models. The operant and cognitive models of self-management are not mutually exclusive. Recently, a greater emphasis has been placed on combining the two models. Williams and Long (1975) include a combination of both in their model for self-control. They state that not only does one change the factors in the environment that are controlling behavior but also, through self-verbalization, an individual internalizes the self-management behaviors.

A cognitive-behavioral self-control procedure for cigarette smokers was developed which stressed changing one's thoughts about smoking (Conway, 1975). This procedure involved developing self-statements concerning the ultimate aversive consequences of continued smoking and the person's motivation for wanting to quit smoking. The urge to smoke was used as a cue to recite these self-statements. Stimulus control strategies were also included for limiting the conditions under which cigarettes were smoked, as well as procedures for goal setting, self-contracting, and self-reward.

The concept of "cognitive ecology" was combined with operant techniques as part of a treatment package with overweight counseling trainees (Horan, Robb, & Hudson, 1975). Self-defeating thoughts and excuses were directly challenged, and thoughts dealing with the desirable aspects of losing weight were encouraged.

K. Mahoney and M. J. Mahoney (1976) have made the greatest effort to combine the two models of self-management in the area of weight control. Their weight control program includes important factors from the operant model such as self-monitoring, stimulus control, and self-reward, as well as emphasizing the major role self-statements play in weight loss failures and successes. It seems that

self-management treatment packages may be more powerful if they combine the relevant aspects of the operant and cognitive models. Both models have independent contributions for self-management which can be interdependent and complementary

Review of Related Weight Control Literature

An ideal program for weight control would accomplish at least three goals: (a) it would attract and retain the participants, (b) it would assist the participants in losing a desired amount of weight, and (c) it would allow the participants to continue losing weight, or allow them to maintain their ideal weight after the formal program is over (Harris & Bruner, 1971).

Stunkard (1972), in his review of several weight control studies, reports that behavior modification approaches are more effective than previous methods of treatment. Penick, Filion, Fox, and Stunkard (1971) treated 32 patients who were at least 20% overweight by using behavior modification approaches and a traditional group therapy method. Even though the individuals' responsiveness to the behavioral treatment varied widely, it was concluded that the self-control training was superior to the group therapy and that behavior modification represents a significant advance in the treatment of obesity. M. J. Mahoney and K. Mahoney (1976a) also state that behavioral approaches to weight control seem to be better than any other method presently used.

Stuart's (1967) study is important because it demonstrated that stimulus control procedures and weight and food monitoring can be effectively used in producing weight loss. The results showed impressive weight losses in 8 of 10 clients over a combined treatment and

follow-up period of one year. The weight loss ranged from 26 pounds to 47 pounds, with the number of therapeutic sessions ranging from 16 to 41. A subsequent study by Stuart (1971), which involved a more refined version of his treatment package, also produced impressive results. Very few studies, since these two by Stuart, have been as successful.

Even though the behavioral approaches have shown great promise in the treatment of obesity, they are far from ideal. Hall and Hall's (1974) and Abramson's (1973) recent surveys of the behavioral approaches to weight control point out many problems in this area. Much of the research methodology that is used by the experimenters is inadequate. It is quite common to find high attrition rates for the subjects in the treatment groups, and when significant differences are found between treatment and control groups, the actual weight loss can be quite small. For example, Manno and Marston (1972) found a significant difference between covert sensitization treatments and no treatment, with an actual average weight loss of slightly more than four pounds. Most research studies, to date, have not moved beyond the demonstration stage. There is a need to identify relevant client and treatment variables that contribute to a meaningful weight loss.

Hall and Hall (1974) devide behavior modification techniques for weight control into two classes: Experimenter-Managed (EM) and Self-Managed (SM). These two categories are not totally dichotomous, but they emphasize relative differences in counselor behavior (director vs. teacher), client behavior (passive vs. active), and location (therapy hour vs. natural environment). In Hall and Hall's (1974) review of numerous studies in both the EM and SM category, it is reported that,

even with the methodological problems of the studies, the self-management techniques appear to be the most promising.

The effects of external control and self-control on the modification and maintenance of weight have been directly compared (Jeffrey, 1974). The external control group was shown previous research that indicated that weight loss is promoted if the counselor dispenses financial incentives, which are previously deposited by the clients, for successful attainment of weight-control goals. The implication was that the responsibility for weight loss was the therapist's control of the rewards. At the conclusion of each weekly meeting, the therapist paid the clients $1.75 if they had met their weight loss goal and $2.50 if they had met their eating-habit improvement goal. If either or both goals were not met, the money was deposited in a locked cash box and not refunded. The self-control group was told that each person was responsible for his/her own weight management and that weight loss is promoted if they learn to appropriately reward themselves for success. The clients would reward themselves, by money previously deposited, if they had achieved their goals. The self-reward was at the same rate as in the external control group.

The results indicated that the self-control and external control treatments were equally effective in producing weight loss during treatment. However, the self-control group was more effective than the external control group in maintaining the weight loss at a six-week follow-up.

Several other experimental studies (Bellack, 1976; Harris, 1969; Mahoney, Moura, & Wade, 1973; Wollersheim, 1970) have reported success using self-management procedures with the average weight loss

ranging from 7.5 pounds to 15 pounds. Follow-up periods ranged from 0 to 16 weeks.

Even though self-management procedures seem to be more effective than experimenter-managed techniques, they are far from ideal. Jeffrey (in press) points out that no self-management study has demonstrated sustained weight loss, following the treatment phase, and continuing until the individual reaches his/her desired weight goal. Most studies with relatively short follow-up periods indicate that while weight gain did not necessarily occur, neither was there continued weight loss. If the purpose of self-management techniques is to teach clients how to control their own behavior, one would expect continued weight loss after the termination of formal treatment, rather than stabilization. On this point, self-management techniques have not been successful.

The long-term effectiveness of self-management procedures, in terms of weight change after treatment, has been directly examined (Hall, Hall, Hanson, & Borden, 1974). Clients consisted of a university sample and a community sample. Four treatment groups were utilized. The combined self-management group included 10 weekly meetings of 75 minutes each, and the clients were taught weight and food monitoring, stimulus control over eating, application of deprivation and satiation, self-reinforcement, self-punishment, techniques to break the chain leading to eating, and the development of a prepotent repertory. The simple self-management group included 10 weekly meetings of 10-15 minutes each, and the clients were taught how to monitor the number of bites of ingested food per day and to record these data. The bites per day were systematically decreased until

the clients lost 1-2 pounds per week. The nonspecific group met for 75 minutes each session for 10 weeks and discussed how tension aggravates and instigates overeating. They also practiced relaxation and developed hierarchies of stressful situations. The fourth group was a no-treatment control. The clients' weights were recorded at pre- and posttreatment and at three- and six-month follow-up periods.

The results showed no differences in the mean percentage body weight loss between the two self-management groups at posttreatment and follow-up, but the self-management groups at posttreatment and follow-up did significantly better than the nonspecific and no-treatment control groups. The most important finding was the failure of the self-management treatment to produce continued weight loss or even to produce maintenance of weight loss. At the six-month follow-up, the self-management groups had gained back more than half of their lost weight. Almost all of the clients in the combined self-manage ment group reported, at the three-month follow-up, that they no longer used any of the techniques taught them. Almost three-fourths of the clients in the simple self-management condition reported abandoning the method. One conclusion that could be assumed is that self-management methods are effective if clients use them. The question becomes how to teach self-management so that the clients can continue to use the methods without the therapist.

Hall et al. (1974) raise the issue that weight loss during treatment may be related to the demand characteristics of the experimental situation. Since both self-management treatments produced similar results, the demands of pariticpation may compel the clients to carry out the techniques during treatment, but with the termination of

treatment, the demand to perform the techniques is removed.

Another study found no reliable evidence that group self-control training will result in permanent weight loss (Murray, Davidoff, & Harrington, 1975). Two groups of nine overweight women received 12 weekly sessions of self-control training in the presence of fattening foods. One of the two groups received alternative response training along with self-control training. These two groups were compared with a motivated control group of people who had volunteered for the study and an unmotivated control group randomly chosen from TOPS members who did not volunteer for the experiment. All the subjects in the study were members of the national TOPS (Take Off Pounds Sensibly) organization. Weights were recorded at 12-week intervals: 12 weeks prior to the start of treatment, pre- and posttreatment, and 12- and 24-week follow-up periods.

The results showed that, at posttreatment, the group with self-control and alternative response training lost significantly more weight (-8.89 pounds) than the other three groups. There was no difference among the other three groups. But at the 24-week follow-up, almost all of the average weight loss of the self-control and alternative response training group had disappeared (+7.73 pounds). This finding raises serious questions concerning the long-term usefulness of this self-control treatment package.

A similar study by Jeffrey, Christensen, and Katz (1975) showed that two out of four subjects were unable to maintain their weight loss at a six-month follow-up period. In this study, four clients used a standard self-management procedure and had a total of 26 treatment sessions over a 24-week period. Sessions were scheduled so

that a high density of patient-therapist contact occurred early in treatment, with a gradual reduction in contact as treatment progressed. The four clients had a mean weight loss of 27 pounds during treatment, but at the six-month follow-up, two of the clients regained 14 and 17 pounds. The other two clients were able to maintain their goal weight. Jeffrey et al. (1975) suggest that long-term follow-up data are necessary in order to guard against overly optimistic hopes as to the effectiveness of behavior therapy for obesity.

Several conclusions could be drawn from the above studies concerning the ineffectiveness of self-management procedures to produce weight loss in the absence of the counselor, following formal treatment. One could conclude that treatment was not long enough for the clients to fully incorporate the self-management techniques into their own behavior. The self-controlling behavior (new eating habits) is a learned behavior and must replace some very strong, well-practiced patterns (old eating habits). This process of learning may take place slowly over an extended period of time. Also, the client's motivation to change may decrease.

The clients' understanding and acceptance of the self-management procedure is not assessed in the above studies. It could be assumed that clients must thoroughly understand the purpose, rationale, and procedure of each technique and accept it as a useful tool for weight loss if they are going to continue using it in the absence of the counselor.

A fourth conclusion is that the self-management procedures used in the above studies are not potent enough to produce long-term change in clients. All of the self-management procedures used in these studies were based on the operant model. It could be that the

operant-based self-management procedures are not powerful enough for a complex problem like weight control. Little research has been done concerning the use of a cognitive model of self-management or a combination of the operant and cognitive model for weight control.

Thorn and Boudewyns (1976) conducted a study which had only two treatment sessions and a one-month follow-up. Four groups were included: behavior therapy (operant model), rational therapy (cognitive model), discussion group, and no-treatment control. The rational therapy group emphasized that when trying to lose weight, people make irrational statements to themselves which will undermine their effort.

The results indicated that, at follow-up, the behavior therapy group had lost significantly more weight (-3.4 pounds) than the other three groups. One can question the meaningfulness of the data because of the limited treatment time, small weight loss, and short follow-up period. But the study does indicate a move toward including a cognitive model of self-management with weight control problems.

One might assume that a combination of operant and cognitive self-management procedures would be a more potent treatment package for weight control than either model by itself. Both models have independent contributions for the self-management of weight control problems. Used together, the two models could complement each other. Horan et al. (1975) used a combination of operant and cognitive self-management procedures in their treatment package. Their results showed a significant average weight loss (-6.54 pounds) for the seven weeks of treatment, and, at a two-month follow-up period, the weight loss was maintained. Again, the meaningfulness of the data can be questioned since the clients did not continue to lose weight during the follow-up

period, and the average weight loss is relatively small. There is also no indication of how well the clients understood and utilized the various components of the treatment package. But, the study is encouraging, since it demonstrates that a comprehensive treatment package can be developed and implemented for weight control using procedures from both the operant and cognitive models.

The most comprehensive treatment package for weight control which combines the operant and cognitive models of self-management was developed by M. J. Mahoney and K. Mahoney (1976a). Their weight control program consists of eight components: (a) self-monitoring, (b) sound nutrition, (c) moderate exercise, (d) stimulus control, (e) relaxation training, (f) social support, (g) self-reward, and (h) cognitive ecology. They stress that successful self-control is an exercise in personal science which includes a seven-step process. The word SCIENCE is used as a mnemonic device, with each letter representing one of the steps: S - Specify the general problem area; C - Collect data; I - Identify regularities and possible problem sources; E - Examine the various options and possible solutions; N - Narrow the options and experiment; C - Compare your data with your previous data; and E - Extend, revise, or replace your solution.

They also strongly emphasize cognitive ecology--cleaning up what you say to yourself. Inappropriate self-talk contributes to inappropriate behavior, and cognitions play a critical role in one's eating patterns. Eating is often a response to thoughts about situations and feelings. Cognitive ecology includes setting reasonable goals and replacing negative monologues with more appropriate ones.

Little research has been reported on the short-term and long-term

effectiveness of a self-management treatment package which combines the operant and cognitive models.

Factors That Influence Eating Behavior

There is no human function so vital as eating, except for breathing, and there is none that is influenced by so many psychological factors, except for sex (Creedman, 1974). It appears that people, unless they are starving, eat what they like and not necessarily what their body needs. People "learn to like" certain flavors and foods, and these learned habits are strongly influenced by experiences early in life. What people eat and how much they eat is a result of a complex system of learned attitudes, ideas, and assumptions. These learned attitudes, ideas, and assumptions are developed because food is used for so many different purposes in our society. Food is used to promote friendship, attain status, achieve security, relieve tension, and influence the behavior of others (e.g., children).

Schachter (1971a, 1971b) presents substantial evidence that environmental cues such as sight, smell, color, flavor, psychological setting, and the passage of time play a key role in conditioning the feeling of hunger in obese people. Obese people are relatively insensitive to internal cues but are highly sensitive to environmental, food-related cues. Consequently, the eating behavior of obese people is more under situational control than that of normal-weight people.

The eating behavior of obese and nonobese subjects in a naturalistic setting has been examined (Gaul, Craighead, & Mahoney, 1975). Differences were found in the eating styles of obese and non-obese individuals. Obese subjects took more bites, performed fewer chews

per bite, and spent less time chewing than did the normal-weight subjects. Also, the eating behavior of obese and nonobese people has been observed and recorded, via videotape, in a laboratory setting (Hill & McCutcheon, 1975). Obese individuals ate more high-preference and less low-preference food than nonobese individuals. Although the findings are not statistically significant, the obese people ate more food, ate faster, and took fewer bites, which is similar to the findings of Gaul et al. (1975).

Overeating can be a result of strong emotions (Berland, 1975). Many people eat in order to fulfill emotional needs such as attention, caring, and affection. Others may overeat in order to avoid personal involvement with other people, or obesity may be used as a form of hidden rebellion. In times of tension, eating may act as a tranquilizer, and in times of boredom, eating may be a stimulant.

Individuals who regained weight following a weight loss program showed a strong association between eating and emotional arousal (Leon & Chamberlain, 1973a). Both positive and negative emotions were associated with eating. Also, these people showed a greater preference for high-calorie foods. It was concluded that the emotional states are discriminative stimuli for food intake.

Research on personality traits of obese versus normal-weight people has been sparse and unproductive. Sikes and Singh (1974) studied 64 obese and 62 normal-weight students to determine whether obese and normal-weight people differ in motivational strength, self-esteem, and compliance. They found no significant differences. Gormanous and Lowe (1975) report no significant differences in Rotter's I-E (internal-external) scale between normal and obese female students.

It appears that obese people cannot be distinguished from normal-weight people on the basis of a single or small group of personality traits. The distinguishing factors may be behavioral measures.

Client Variables Related to Weight Loss

Clients will vary considerably in their responsiveness to self-management weight control procedures, and researchers should attempt to evaluate client variables in order to better understand weight loss variability (Jeffrey, in press). Surprisingly, little research has been done in order to determine what client variables, if any, contribute to success or failure in self-management programs. Where research has been conducted, conflicting results are often obtained.

Motivation is a major consideration in any self-management program (Kanfer, 1975). Clients must be motivated to make a decision to change and to initiate and carry through on the program. A relapse may be seen as the extinction of the commitment to change. Many factors influence people to make verbal statements that they want to change. People are more likely to say that they want to change under the following conditions: (a) delay in the onset of the program; (b) a history of positive reinforcement for promise-making; (c) recent indulgence to satiation; (d) where guilt, discomfort, and fear over one's behavior is high; (e) escape from social disapproval; (f) the presence of others making promises; (g) where the behavior to be changed is private and cannot be easily checked; and (h) where the promise is vaguely phrased. Other conditions make it more difficult to make a verbal commitment to change. These are: (a) the program begins immediately; (b) past failures to keep promises have been punished;

(c) problematic behavior is not perceived to be under the client's control; (d) positive reinforcement for the problem behavior is high; (e) criteria for change are too high; (f) consequences of nonfulfillment are harsh; (g) behavior is publicly observable; and (h) support for change is not anticipated.

One might assume that the commitment to change would involve a class of covert self-statements. People tell themselves certain statements about the aversiveness of the target behavior, the importance of change, the anticipated effort required to change, the expectation of success, and the ultimate positive consequences. One factor that might influence whether people progress, maintain, or relapse in a self-management weight control program would be the quality of their self-statements. Certain self-statements may enhance one's ability to implement a self-management program. Other factors, such as program requirements and reinforcement for success, would also influence the execution of the program.

Unfortunately, no systematic research has been reported that attempts to clarify the motivational variables which contribute to the success or failure of a client engaged in a self-management weight control program.

Locus of control as measured by Rotter's I-E scale has yielded conflicting results in predicting success in weight reduction. Balch and Ross (1975) found significant correlations between internal Rotter I-E scores and both completion and success in a weight reduction program. Success was defined as those subjects showing a weight loss greater than the median. No follow-up data were provided. On the other hand, Leon and Chamberlain (1973b) found no significant

differences in the mean I-E score for subjects who had maintained their weight loss for one year and those who had regained the weight they had lost. Also, Murray et al. (1975) found no significant correlations between weight loss and scores on Rotter's I-E scale.

Data on relevant client variables that relate to the success or failure in self-management weight control programs are severely lacking. Identifying and systematically studying relevant client variables are an area that deserves attention. The success of self-management weight control programs may depend not only on the type of treatment package, but also on the kind of factors operating within the person.

Summary

The purpose of this study is two-fold: (a) to evaluate a combined model of self-management for weight control which includes operant and cognitive concepts, and (b) to identify potentially relevant client variables that are related to the success or failure of the client to implement the treatment package. Little research has been reported concerning either of these areas.

The term "self-management," in this paper, denotes any response made by individuals in order to change or maintain their own behavior. The clients are seen as active agents who are responsible for their own behavior change in the absence of immediate external controls. The self-control behavior is viewed as a specific response which can be facilitated through the learning process.

The behavioral models of self-management can be separated into an operant conditioning model and a cognitive, self-statement model. The operant model utilizes environmental planning (stimulus control)

strategies which involve altering the antecedent stimuli that elicit the target behaviors and prearrangement of behavioral consequences. Also, a behavioral programming strategy is used which involves self-administered rewards or punishments contingent upon some designated behavior.

The cognitive model emphasizes the role of covert speech (self-statements) in self-control. Behavior change is facilitated by modifying what clients say to themselves (cognitive ecology). Systematic rational restructuring and self-instructional training are methods used to modify negative self-statements and monologues. The evidence presented indicates that self-instructional training can increase delay of gratification, resistance to temptation, and tolerance for darkness (fear object) in young children. Delay of gratification and resistance to temptation are very important areas in self-management approaches to weight control.

Until recently, the self-management approaches to weight control were totally based on the operant model. But it seems that self-management treatment packages may be more powerful if they combine the relevant aspects of the operant and cognitive models. Both models have independent contributions for self-management which would be complementary in a weight control program.

Weight control research strongly suggests that self-management procedures are the most promising, but they are far from ideal. If the purpose of self-management procedures is to teach clients how to control their own behavior, one would expect that clients, following formal treatment, could continue to lose weight until their goal is reached and be able to maintain their new weight. Typically, clients

will lose weight during formal treatment using self-management procedures, but they will fail to continue losing weight after treatment and, in many cases, will regain the lost weight.

Possible reasons for the ineffectiveness of self-management procedures at follow-up are: (a) formal treatment was not long or complete enough; (b) clients fail to understand and accept the self-management procedures, and, therefore, discontinue using what they had learned; (c) the client's motivation to change decreases; and (d) the present self-management procedures are not potent enough to produce long-term change in the client's behavior.

A combined operant and cognitive self-management package for weight control may offer a more potent treatment. But little research has been reported on the short-term and long-term effectiveness of a combined self-management package. This study will investigate the short-term effectiveness of a self-management treatment package which stresses the cognitive approaches but which also includes concepts from the operant model. This study is designed to determine how effectively clients can lose weight in the absence of a counselor. Self-management procedures are taught in two five-week phases with a five-week withdrawal of treatment following each phase in which the clients have no contact with the counselors. If the self-management procedures are effective, the clients should be able to continue losing weight on their own.

Research suggests that obese and normal-weight people cannot be distinguished on the basis of a single or small group of personality traits. The distinguishing factors may be related to learned attitudes, ideas, and assumptions about food; sensitivity to

environmental, food-related cues; and the interrelationship between eating and emotions.

Research on relevant client variables that relate to the success or failure in self-management weight control programs is severely lacking. Identifying these variables is an area that deserves attention since clients vary considerably in their responsiveness to these programs. Research in this area must first identify potential client factors and then actively manipulate them in a controlled setting to determine how they influence weight loss variability. This study, through an intensive case design, will attempt to identify some client variables that may contribute to the success or failure of a self-management weight control program.

CHAPTER 2

DESIGN AND PROCEDURES

Clients

Selection. Twenty-nine people either responded to an advertisement placed in the school newspaper or were referred by Dr. Mary H. Ryan, Michigan State University Health Center. To be eligible for the study, the clients had to fulfill the following criteria: (a) must be at least 20% overweight, as measured by the 1969 U.S. Department of Agriculture desirable weights table (Stuart & Davis, 1972); (b) must state that they want to lose 20 or more pounds; (c) must be available for both the winter and spring quarter, 1976; (d) must not be presently engaged in any other weight control program; (e) must receive medical clearance from Dr. Mary H. Ryan; and (f) must have completed all assignment sheets during the baseline phase.

At the end of the baseline phase, 14 clients met all of the above criteria. The 12 clients to be included in the study were chosen from these 14. The clients were ranked according to their percent overweight, and the top 11 were automatically included. Of the remaining clients, the one whose schedule best matched the counselor's schedule was selected.

Description. The 12 clients included 2 males and 10 females who ranged from 27% to 69% overweight, with a mean of 45%. The age

ranged from 18 to 24 years, with a mean of 21. All of the clients were students at Michigan State University. Three of the clients were married, and nine were single. Three of the clients lived in university dormitories, and nine lived in apartments or married housing.

Eight of the 12 clients described themselves as being overweight since childhood, and the other four stated that they had been overweight since either junior high school or high school. Ten of the 12 clients reported having tried three or more methods in order to lose weight. These methods primarily consisted of special diets such as Dr. Stillman's water diet, Dr. Atkins' diet, grapefruit and egg, protein and water, Weight Watchers, and fasting. Diet pills had been used by two of the clients. Ten of the 12 clients stated that they had wanted to lose weight for five or more years.

The stated weight loss goals ranged from 25 to 75 pounds, with a mean of 52. On a scale of 1 to 5, with 1 being slight and 5 being very strong, 11 of the 12 clients gave a self-rating of 4 or 5 to the questions, "How unpleasant is your weight problem to you?" and "How important is it that you lose weight?"

Counselors

Description. One male and five female counselors were trained and implemented the treatment package with the clients. Three of the counselors were doctoral students in counselor education, and the other three were master's degree-level counselors. The master's degree-level counselors had completed all the required counseling courses for the master's degree, which included two supervised practicums, but lacked one or two elective classes in order to receive their degree. Both the

doctoral program and the master's degree program, in which these counselors were enrolled, have a behavioral orientation.

Counselor A. Counselor A was a female, first-year doctoral student in counselor education. She had an M.A. degree in counseling and had worked eight years in student personnel work, including assignments in resident halls and financial aids counseling. She had taught psychology and was directly involved in personal counseling, both group and individual, for three years. At the time of the study, she was tutoring students who were not succeeding academically at Lansing Community College. Counselor A had also been involved in a doctoral-level practicum.

Counselor B. Counselor B was a male, second-year doctoral student in counselor education. He had an M.A. degree in counseling and was currently a head advisor of a university dormitory. He previously spent two years as director of enrollment and development at a small college and did ministry work with high school students involving both individual and group counseling. Also, he lost 20 pounds during the study.

Counselor C. Counselor C was a female, second-year doctoral student in counselor education. She had an M.A. degree in counseling and had several years of teaching experience. She had been involved in a doctoral-level practicum and had previous experience in conducting weight control groups. Also, she lost 17 pounds during the study.

Counselor D. Counselor D was a female and had completed all of the required counseling courses for the M.A. degree in school counseling,

including one practicum at a high school and one at a middle school. She had taught junior high school for one year and had served as a paraprofessional counselor for Parent Effectiveness Training (P.E.T.) groups. She had also conducted career orientation groups for adult women. At the time of this study, counselor D was employed as a staff advisor to volunteer programs at Michigan State University. She was rated in the top 10% of her class by her practicum supervisor. She lost seven pounds during the study.

Counselor E. Counselor E was a female and had completed all of the required counseling courses for the M.A. degree in school counseling, including two practicums at the community college level. Two elective courses remaining on her program were completed half-way through the study. This counselor had performed volunteer work at the Listening Ear for one year and had received extensive empathy training. Also, she had conducted career planning groups at Lansing Community College and tutored disabled adults through an adult basic education program. Counselor E was rated in the top 10% of her class by her practicum supervisor. She lost 10 pounds during the study.

Counselor F. Counselor F was a female and had completed all of the required counseling courses for the M.A. degree in school counseling, including one practicum at the community college level and one at a middle school. She had conducted career planning groups and human potential seminars at Lansing Community College. Counselor F held a secondary teaching certificate and, at the time of the study, was employed as an assistant residence advisor in a university dormitory. Counselor F was rated in the top 10% of her class by her practicum

supervisor. Also, she lost six pounds during the study.

Training procedures. The counselors read the following material prior to the training sessions: (a) "Foods and Flavors" (Creedman, 1974), (b) "Eat, Eat" (Schachter, 1971a), (c) "Emotions and Eating" (Berland, 1975, pp. 30-39), (d) Slim Chance in a Fat World (Stuart & Davis, 1972), (e) "Cognitive Change Methods" (Goldfried & Goldfried, 1975, pp. 89-100), and (f) "Self-Instructional Methods" (Meichenbaum, 1975, pp. 357-372).

Four training sessions of approximately two hours each were held. The general concepts of the treatment package and the specific activities during each counseling session were discussed. Following each training session, the counselors rated how well they understood the treatment concepts that were discussed during that session (see Appendix A for the rating forms). Also, the researcher rated each counselor. Both ratings had to indicate a very good understanding of the concepts and activities before implementation was allowed. The counselors were encouraged to contact the researcher if they had any problems, questions, or misunderstandings concerning the implementation of the treatment package. All interviews between the clients and counselors were audiotaped and monitored by the researcher as a further check on proper implementation.

Assignment of clients to counselors. The only variable utilized to assign clients to counselors was sex. Male clients were assigned to the male counselor, and the female clients were assigned to the female counselors. Chesler (1971) and Hill (1975) report that counselors and clients respond differently, depending upon the sex of each. It is

suggested that counselors are able to identify more with people with similar experiences and that counselors have more difficulty being empathic with opposite-sex clients than with same-sex clients. Also, female clients reported more satisfaction when paired with female therapists than with male therapists.

In our society, it is quite common for females to talk freely with other females about their weight problems, but it is less frequent for a woman to discuss her weight problems with a man. A frequent motivator for college-age people to lose weight is appearance and attraction to the opposite sex. It may be assumed that having the same-sex counselor and client, will make it easier for the client to discuss this issue. Also, male-female sex-role stereotypic behaviors are eliminated by having same-sex counselor and client.

The clients were treated individually, with four of the counselors (A, B, C, and D) treating two clients each, counselor E treating three clients, and counselor F treating one client. Assignment of female counselors to female clients was based on compatibility schedules. The free time of the clients was matched to the time that the counselors had available.

Treatment Package

A self-management weight control package was developed which incorporated concepts from the operant and cognitive models. The cognitive aspects were more heavily stressed. The treatment was divided into two five-week phases in which the clients met individually with their counselor for approximately one hour, once per week. Consequently, treatment time consisted of 10 one-hour sessions. At each session, the

client's weight was recorded to the nearest half-pound.

During the baseline phase and prior to meeting with the counselors, the clients performed the following: (a) they signed a research consent and audiotape release form; (b) they obtained medical clearance from Dr. Mary H. Ryan, Michigan State University Health Center; (c) they completed a questionnaire; (d) they completed the baseline weight form for three weeks; (e) they completed a daily eating record for one week and a summary form of their eating habits; and (f) they read the condensed edition of Stuart and Davis' (1972) Slim Chance in a Fat World (see Appendix B for copies of the above forms).

The following concepts were emphasized during the first five-week treatment phase.

Self-management. It was stressed that the clients will learn techniques that make it easier to control their own behavior and that they are responsible for their behavior change. The role of the counselor is to teach the clients techniques that will allow them to reach their goal and exercise control over their eating behavior. The responsibility of the client is to implement the techniques and perform the necessary homework assignments.

Weight control programs could be classified into two broad areas. The first category emphasizes weight loss by having one's eating behavior controlled by outside sources (other-managed). Extreme examples in this area include being hospitalized where food intake is highly controlled by the staff, or having one's jaws wired shut. Special or fad diets in which the total responsibility for weight loss is placed on the diet are included in this area. Also, if the person is

only losing weight for some reason outside of him/herself such as spouse, friend, or group, this is seen as other-managed.

The second category emphasizes weight loss through changing one's eating habits, which characterizes the self-management approach. In order to lose weight and keep it off, a change in eating habits must occur. The clients were told to think of self-management techniques as leading to a permanent weight loss and that people who continually lose weight and regain it are producing more harm to their system than if they had stayed overweight. For self-management approaches to be effective, the primary motivation must come from within the individual. Outside factors can help a person lose weight, but in order to be successful over the long term, the person must lose weight for him/herself. For example, if people lose weight primarily because they are attending a weight control group and they do not want to be embarrassed by not being successful (other-managed), the group becomes the main motivator to lose weight. As soon as they stop attending the group and the motivation is removed, it is almost assured that they will regain the lost weight. Losing weight is hard work, requires considerable effort, and must be done primarily for oneself. It is a selfish activity.

Conceptual model of eating behavior. Overeating has positive immediate effects but aversive long-term effects. In weight control, this delay in aversive effects makes it more difficult to reduce food intake. A conflict between the immediate positive effects and long-range aversive effects exists. Consequently, the more immediate the aversive effects can become, the easier it is to control eating behavior.

Eating habits are learned, and what, when, and how much people eat are determined by a complex system of attitudes, ideas, assumptions, and feelings. Situational and stimulus factors such as taste, flavor, texture, temperature, color, appearance, and setting are important psychological factors in controlling eating behavior. Research suggests that for obese people, the actual state of the body (stomach) has very little to do with the report of hunger and the eating of food. External cues such as taste, smell, sight, and time of day seem to have a major influence on eating behavior.

Taste and flavor are important immediate reinforcers for eating. Also, food is used to promote friendship, relieve tension or boredom, influence the behavior of others, and achieve security. Overeating can be a result of strong feelings. Some people have learned to eat when they are in stressful situations. Eating becomes a tranquilizer for them. Eating can occur when people are bored, and it acts as a stimulant.

The logical consequences of the above findings are: (a) to make the aversive consequences of overeating more immediate, which can be done through cognitive techniques; (b) to reduce the external control of a person's eating behavior by rearranging the environment; and (c) to develop alternative responses to problem situations and feelings. Understanding and acceptance of this model are important. Clients were asked to validate the model from their own experience and to analyze their own eating behavior in terms of this model. Understanding and acceptance of this model should logically lead to implementing specific cognitive and behavioral strategies which will help change eating habits and weight loss.

Conceptual model of self-statements. Research suggests that what people say to themselves plays an important role in controlling their behavior. People talk to themselves in sentences and phrases, and these self-statements--in the form of expectations, misperceptions, and assumptions--have significant implications for overt behavior. For example, if people say to themselves that they are likely to fail on a particular diet, then they are more likely to give up early. If people think they can succeed, then they will persist longer. Irrational beliefs and self-defeating thoughts can keep people from reaching their goal. This model will be developed in greater detail in the second five-week treatment phase.

The conceptual models should have face validity or an air of plausibility for the clients, and the clients' acceptance of them is very important. The acceptance of the above models should naturally lead to the practice of cognitive and behavioral coping behaviors.

Setting realistic goals. It is very important in weight control that clients set realistic weekly, phase, and long-term goals. The goals not only involve weight loss but should also emphasize the activities that will lead to weight loss. The activity goals lead to a change in eating habits. Unrealistic weight loss goals and activity goals can lead to frustration and discouragement and often contribute to failure in a program.

The following points were emphasized: (a) significant weight loss is a long-term goal, since it took a period of time to gain the weight and it will take a long period of time to lose the weight; (b) research shows that a one- to two-pound loss per week is a healthy rate,

and that too rapid loss of weight can be harmful to the body; (c) since weekly weight can fluctuate greatly because of body fluids, it is important that the person find goal satisfaction from performing the activities that will lead to long-range weight loss; and (d) a long-range activity goal is the changing of the person's eating habits so that a permanent weight loss can be obtained.

Throughout the entire program, a checklist was employed in order to give the counselors and clients feedback on how well they were performing the activity goals (see Appendix B for the form).

Motivation to change. The client's motivation or commitment to change is a key variable to the success of a weight control program. The clients were asked where losing weight fits into their life. What is more important in the client's life than losing weight, and what is less important? The clients were asked to discuss the following questions: (a) How aversive is being overweight for you? (b) How important is it that you lose weight? (c) How much effort do you feel that it will take to lose weight? (d) How much effort are you willing to expend? (e) What are the positive consequences of losing weight? (f) Where does losing weight fit into other values in your life? and (g) What is your expectation of success?

From the material discussed, motivational self-statements were implemented. The clients developed self-statements which would help them at problem times to stay committed to the program and reach their goals. The motivational self-statements consisted of positive consequences of losing weight and/or negative consequences of not losing weight. The clients were instructed to use personal statements that

would have great significance for them. Also, these motivational self-statements were attached to recurring cues such as hunger, boredom, a particular food, or a problem situation.

Diet plan. The diet plan found in Slim Chance in a Fat World (Stuart & Davis, 1972) was utilized. This plan involves an exchange list and, if used properly, guarantees a well-balanced, nutritionally sound diet. It was emphasized that a calorie deficit must be created in order to lose weight. But it was also stressed that extreme states of deprivation should be avoided because, if a person gets too hungry, it becomes easier to break the diet and give up the diet plan. In order to control the states of deprivation, three meals a day were recommended. Also, the more extreme the diet, the harder it is to stay on the diet for an extended period of time. Starvation diets should be avoided because a person will lose muscle mass, as well as fat, resulting in damage to vital organs. The protein of the body (muscle and organs) will break down with the fat to supply energy to the body. Most nutritionists recommend not going below 1200 calories a day and a balanced diet. If the diet is not balanced, specific deficiencies and hungers can occur. A hunger rating form (see Appendix B) was therefore used, for two purposes. First, the deprivation state that a diet is creating can be assessed. If the client is too hungry, then an increase in calories is needed. If the client experiences a low level of hunger, the diet may be reduced or a check can be made to determine if the client is implementing the diet properly. Also, the hunger rating form often indicates to clients that they have desires to eat when they are not actually very hungry.

Criteria for selecting a diet are as follows. A good diet is: (a) one that is nutritionally sound which provides all necessary nutrients and helps decrease body fat without damaging the body structure, (b) one that can become a basic pattern of eating for the rest of the person's life, (c) one that consists of a wide variety of foods that are appetizing and pleasant to eat, (d) one that helps train the appetite and develop a pattern of eating at regular intervals, (e) one that provides foods with staying power to prevent excessive hunger, (f) one that is built around a nucleus of familiar foods which can be adaptable to the person's living situation, and (g) one that can take into account individual differences and can be planned accordingly. A bad diet is: (a) one that has a limited choice of food, which leads to feelings of deprivation and monotony, and does not provide all the necessary nutrients; (b) one that requires special foods that make the diet difficult to follow in normal living situations; (c) one that leads to rapid weight loss which may be detrimental to health and damaging to the body structure; (d) one that does not establish a pattern to follow for the rest of the person's life; and (e) one that can be used for only a short time.

Situational strategies. From the situational strategies which are discussed in Slim Chance in a Fat World (Stuart & Davis, 1972), two or three that were most relevant to the client were implemented. Each client, depending upon his/her situation, will find some of the situational strategies more appropriate than others.

The list of situational strategies includes: (a) arrange to eat in one room only, and only in one place in that room; (b) when you eat,

avoid other activities; (c) buy nonfattening foods when possible; and keep problem foods out of sight and out of reach; (d) if you eat problem foods, make sure that they need preparation; (e) do the grocery shopping after you have eaten, and always shop from a list; (f) train others to help you curb your eating; (g) measure all portions, make small portions of food appear large, and make second helpings hard to get; (h) take steps to avoid hunger, loneliness, depression, boredom, anger, and fatigue; (i) always keep on hand a variety of safe foods to use as snacks; (j) keep track of how much you have eaten and how much more you can eat within you diet at all times, everyday; (k) slow down the rate at which you eat; (l) keep a graph of how much you eat, how much you exercise, and how much weight you lose; (m) build in some payoff for following every step in the program; (n) do not serve high-calorie condiments at meals; (o) allow children and spouses to take their own sweets and desserts; and (p) clear plates directly into the garbage.

The following concepts were emphasized during the second five-week treatment phase.

A-B-C model of behavior. This model was used as a general introduction to the concept that self-statements and choices play a vital role in controlling people's eating behavior. "A" refers to some agent, activity, or action (e.g., problem food, situation, or feeling). "B" refers to the individual's belief system about "A" which is symbolized by self-statements and implicit sets of premises. "C" refers to the choice one makes as a consequence of "A" and "B." If "B" represents a rational, realistic set of beliefs about "A," then the person will make

a choice that leads to rational and reasonable behavior which allows goal attainment. But if "B" represents a misunderstanding, rationalization, or irrational set of beliefs about "A," then the person will make a choice that leads to self-defeating behavior (SDB). Therefore, SDB is caused by misperceptions and misevaluations of events which lead to inappropriate choices (Ellis, 1973).

In order to get the client to accept this model, it was first presented with non-diet and non-weight loss examples. After the client agreed that behavior is caused by what a person tells him/herself about the situation, the model was discussed in weight control terms. "A" is a problem food, situation, or feeling; "B" is self-statements about "A"; and "C" is the choice a person makes, such as maintaining the diet or breaking the diet.

Eating as an act of choice. It was strongly emphasized that when, what, and how much people eat is clearly a choice on their part. Food is not flying off the plate and forcing itself into a person's mouth; rather, it is being placed there by his/her hands. People have a choice in their eating behavior (e.g., the eating habits of other cultures). Acceptance of this idea by the client is important, since it sets the stage for what is done during the second five weeks of treatment.

The remainder of this concept was adapted from Cudney's (1975) work on self-defeating behavior. It was emphasized that overeating is a self-defeating behavior (SDB) which involves a number of choices by the person. These choices are mediated by self-statements. The factors which lead to SDB choices were discussed. These included fears,

techniques, disowning, and minimizing the negative consequences. The factors which lead to making goal-attainment choices were also discussed. The clients were given a self-defeating behavior worksheet in order to become aware of how they implemented their self-defeating choices, as well as a handout on ways to defeat a weight reduction program.

Self-instruction strategy. The purpose of self-instruction is to help the client, at choice points, make goals-attainment choices instead of self-defeating ones. The self-instruction package should contain statements from three basic areas: (a) confronting the problem (b) an elaboration of the negative effects of self-defeating behavior and/or the beneficial effects of goal-attainment choices, and (e) reinforcing self-statements. The elaboration of the negative effects of self-defeating behavior and/or the beneficial effects of goal-attainment choices is the most important area. In order for the unwanted effects or desired effects to have a greater impact on the client, it is necessary to make them as explicit, detailed, emotionally charged, and immediately meaningful as possible. The clients must make immediate and repeated connections between their reasons for wanting to lose weight and their urge to engage in self-defeating behavior. Also, the need to practice "talking to yourself" in a positive way instead of a self-defeating way was stressed. The more the client practices the positive self-statements, the easier it will be to resist each desire for self-defeating behavior.

The handouts given the clients concerning the two above concepts, the self-defeating behavior worksheet and ways to defeat a weight

reduction program, are included in Appendix C. A detailed outline of what occurred in each of the 10 counseling interviews is presented in Appendix D.

Implementation of the treatment. In order to determine how well the treatment package was implemented by the counselors, two types of ratings were used. Using the counselor implementation self-rating form (see Appendix E), each counselor rated how well he/she implemented the various concepts and activities for each client, during each interview. A scale of 1 to 10 was used, with a rating of 1 indicating that the concept or activity was not implemented and a rating of 10 indicating that the concept or activity was implemented extremely well.

A second rating was developed to determine how well the important components of the treatment package were implemented. Of the four counselors who had two or more clients for the entire study, one of their clients was randomly chosen for this rating. The two counselors who saw only one client for the entire study were rated on that client.

Two independent raters were trained and rated the counselors using the counselor implementation rating form (see Appendix E). After training, the interrater reliability was established by having each rater judge the same counselor implementing the concepts. A reliability coefficient was determined by a Pearson product-moment correlation

After an interrater reliability of at least .85 was established, each rater judges three of the counselors on the following components of the treatment package: (a) model of eating behavior, (b) model of self-statements, (c) motivational self-statements, (d) attaching self-statements to recurring cues, (e) A-B-C model, (f) eating as an act of

choice, and (g) self-instruction strategy.

Design

Intensive case study. The intensive case study design appears to be most appropriate when one is trying to determine the variables that may cause a particular client's behavior and what treatment will work with that client (Miller & Warner, 1975). The kind of question the researcher seeks to answer should dictate the type of experimental design.

With a between-groups design, the question is whether the average response across clients with one treatment is sufficiently greater than a corresponding group average on a second treatment (Chassan, 1967). But with a between-groups design, it is impossible to distinguish the particular client who improved because of the treatment, and the treatment effect cannot be specifically related to client characteristics and parameters. It is possible that particular treatments are only effective with some clients. The between-groups design adds little to the understanding of the causes of change in individual behavior. Thoresen and Anton (1974) state that "Exclusive concern with group means and variabilities impedes understanding of the treatment process and may lead to erroneous generalizations about treatment effects" (p. 553).

Research in counseling should stress direct observation, careful description, and systematic planned intervention with individual clients (Thoresen, 1972). The intensive case study design offers several advantages for counseling research. These advantages include: (a) the specific behaviors of the individual client are the unit of analysis rather than group means; (b) the specific characteristics of the individual's behavior can be examined continuously during each phase

and between phases of the investigation; (c) individuals serve as their own control, and behavior change is compared to their baseline behavior; (d) experimental control of variables is greatly facilitated, which reduces the need for statistical control; (e) causal relationships can be established by replication of findings across clients; and (f) the intensive design offers a way of investigating the covert (internal) behavior of individuals.

An intensive case study design was used in this study for the following reasons: (a) client responsiveness to self-management weight control programs will vary widely; (b) it is possible to identify which clients do well and which clients do poorly; (c) client variables that influence the success or failure of the treatment package for each client can be more readily identified; and (d) the effectiveness of the treatment is determined by plotting the client's progress on a repeated measures basis.

Summary of the design. This study used an intensive case study withdrawal design (Leitenberg, 1973). In the withdrawal design, the major concern is what happens to the target behavior (weight loss) when the self-management procedure is instated, withdrawn, then reinstated and withdrawn. With self-management procedures, the withdrawal phase is the most critical period since the clients are learning to control their own behavior in the absence of a counselor. The design for this study is presented in Table 1.

The study was divided into five phases which include baseline, two treatment periods, and two withdrawal periods. During each treatment phase, the clients met once per week with their counselor. During each

withdrawal phase, the clients and counselors had no contact, but the clients reported, once per week, to be weighed on the researcher's scales. If self-management procedures are effective, the clients should be able to lose a meaningful amount of weight during the two withdrawal phases.

Table 1

Intensive Case Study Withdrawal Design

Phase				
I	II	III	IV	V
Baseline 6 weeks	Treatment 1 5 weeks	Withdrawal 1 5 weeks	Treatment 2 5 weeks	Withdrawal 2 5 weeks

Dependent variable. Three criteria should be considered in the selection of a dependent variable for weight reduction studies (Bellack & Rozensky, 1975). These include: (a) compatibility with the data analysis procedures, (b) accurate representation of the relevant effects of treatment, and (c) comparability among studies. Each measure that is used in weight reduction studies has advantages and disadvantages.

The most direct measure of change is pounds lost. The major disadvantage of this measure is not taking initial weight into consideration. In order to deal with this problem, percent of body weight lost is used. But this measure does not separate body weight from amount of excess body fat. Both percentage change and raw change fail to take into account the weight-change goals of the client.

A third measure that can be used is change in percentage overweight, which incorporates both initial weight and a reasonable goal

in the calculation. Typically, ideal or desirable weight charts are used to determine percentage overweight and goal. However, the validity of ideal weight charts as a measure of obesity has been questioned. Also, this measure strongly favors lighter clients by making their losses appear disproportionately large.

The dependent variable in this study was the change in pounds and the percentage of body weight change during treatment and withdrawal phase for each client. These measures were determined by comparing the last weight of each phase with the last weight of the previous phase. Enough data are provided for the reader to determine change in percentage overweight.

The clients were weighed at the beginning of the baseline phase and at the fifth and sixth week. During treatment and withdrawal phases the clients were weighed once per week. Their weight was recorded to the nearest half-pound on a Continental doctor's scale, Model 134.

Definition of meaningfulness. Most research (M. J. Mahoney & K. Mahoney, 1976a; Stuart & Davis, 1972) strongly indicates that individuals should lose weight at a rate of one- to two-pounds per week and that people should not lose more than 1% of their body weight per week. Weight loss at a faster rate can be damaging to a person's health.

In order to evaluate the treatment package, a minimum of one pound per week weight loss over each phase (five pounds or 2 1/2% body weight per phase) must be attained to be considered meaningful. Therefore, if the self-management procedures were effective, each client should be able to lose a minimum of five pounds (or 2 1/2% body weight)

during each withdrawal phase, as well as during each treatment phase.

Hypotheses and Data Analysis

The following hypotheses were tested in this study:

H_1: Each individual will show a 20-pound (or 10% weight reduction from the end of the baseline phase to the end of the second withdrawal phase.

H_2: Each individual will show a five-pound (or 2 1/2%) weight reduction during the first treatment phase.

H_3: Each individual will show a five-pound (or 2 1/2%) weight reduction during the first withdrawal phase.

H_4: Each individual will show a five-pound (or 2 1/2%) weight reduction during the second treatment phase.

H_5: Each individual will show a five-pound (or 2 1/2%) weight reduction during the second withdrawal phase.

The data for each client is plotted in graph form across the five phases. Each of the above hypotheses for each client was analyzed according to the data in each phase.

H_6: There will be no difference in the mean weight loss for all clients during the first treatment phase and the mean weight loss for all clients during the first withdrawal phase ($T_1 - W_1 = 0$).

H_7: There will be no difference in the mean weight loss for all clients during the second treatment phase and the mean weight loss for all clients during the second withdrawal phase ($T_2 - W_2 = 0$).

H_8: There will be no difference in the mean weight loss for all

clients during the first treatment and the first withdrawal phases combined, as opposed to the second treatment and the second withdrawal phases combined $[(T_1 + W_1) - (T_2 + W_2)] = 0$.

The data for all of the clients who completed the study was pooled, and the mean weight loss for the two treatment and the two withdrawal phases were analyzed by analysis of variance (ANOVA) with repeated measures.

If the self-management procedures are effective, a meaningful weight loss should occur during each withdrawal phase (H_3 and H_5) and during each treatment phase (H_2 and H_4).

Summary

Twelve clients, two males and 10 females who fulfilled the selection criteria, were included in the study. They were assigned, by sex, to six counselors who had been trained in the treatment methods. The counselors were either M.A. degree-level counselors or doctoral students in counselor education.

A self-management treatment package was developed that stressed the cognitive model. The treatment package emphasized the following concepts: (a) self-management; (b) model of eating behavior; (c) model of self-statements; (d) realistic weight loss and activity goals; (e) motivation to change; (f) well-balanced, nutritionally sound diet; (g) situational strategies; (h) A-B-C model of behavior; (i) eating as a choice; and (j) self-instruction strategy. The treatment was divided into two five-week phases in which the clients met with their counselor once per week.

An intensive case study withdrawal design was used. The study was

divided into five phases which include baseline, two treatment periods, and two withdrawal periods. If the self-management procedures were effective, the clients should lose a meaningful amount of weight during the two withdrawal phases, since they are learning to control their own behavior in the absence of a counselor. The purpose of the intensive case study design is to: (a) determine the effectiveness of the treatment, (b) identify which clients do well and which do not, and (c) identify possible client variables that influence success or failure.

The dependent variable was change in pounds and the percentage of body weight change during treatment and withdrawal. A minimum weight loss of five pounds or 2 1/2% body weight during each treatment and withdrawal phase is considered meaningful. The hypotheses were analyzed according to the cirterion of meaningfulness. The data for all 12 clients were pooled and analyzed by analysis of variance with repeated measures.

CHAPTER 3

RESULTS

Counselor Training and Treatment Implementation

In order to assess the counselors' understanding of the treatment package following training and prior to implementation, a self-rating and the researcher's rating of their understanding of the treatment concepts were utilized (see Appendix A for the rating form). A scale of 1 to 10 was used, with a rating of 1 indicating no understanding of the concept and a rating of 10 indicating that the concept was understood extremely well. Twenty-four specific treatment concepts were rated. The mean ratings for each counselor on the concepts used in each treatment phase are presented in Table 2.

Table 2

Mean Rating of Counselor Understanding of the Treatment Concepts Following Training

	Self-Rating		Researcher's Rating	
Counselor	T-1	T-2	T-1	T-2
A	9.28	8.77	8.55	8.62
B	7.64	7.93	8.37	8.16
C	9.00	9.00	9.19	8.93
D	8.19	8.23	8.28	8.15
E	9.28	10.00	8.91	9.16
F	9.64	9.62	8.91	9.39

Note. Maximum score = 10. T-1 and T-2 represent first treatment phase and second treatment phase, respectively.

In order to assess how well the treatment package was implemented by the counselors, two types of ratings were used. The mean counselor implementation self-ratings for each client are presented in Table 3. The counselors rated how well various concepts and activities were implemented during each counseling session on a scale of 1 to 10 (see Appendix E for the rating forms).

Table 3

Mean Self-Rating of How Well Treatment Concepts and Activities Were Implemented by the Counselors for Each Client during Each Treatment Phase

	Mean Self-Rating		
	Treatment 1	Treatment 2	Total
Counselor A			
Lisa	7.44	7.30	7.37
Mary	7.28	6.84	7.06
Counselor B			
Ken	7.39	7.13	7.26
Ron	7.56	6.87	7.22
Counselor C			
Beth	7.11	---[a]	7.11
Kris	8.78	7.64	8.21
Counselor D			
Fran	8.11	7.50	7.81
Pat	7.33	6.56	6.95
Counselor E			
Ann	7.89	8.00[b]	7.95
Gail	9.56	8.87	9.22
Tina	9.78	9.48	9.63
Counselor F			
Jan	8.39	9.30	8.85

Note. Maximum score = 10.

[a]Client terminated following the first treatment phase.

[b]This score is based on two counseling sessions.

The mean counselor ratings by independent judges on the implementation of the important components of the treatment package (see Appendix E for the rating form) are presented in Table 4. A scale of 1 to 5 was used, with a rating of 1 indicating that the objective was not implemented and a rating of 5 indicating that the objective was implemented extremely well. Following the training of the judges, an interrater reliability for the components in the first treatment phase was .94 and the interrater reliability for the components in the second treatment phase was .87. The overall interrater reliability was .87.

Table 4

Judges' Mean Ratings of Each Counselor's Performance in Implementing Selected Components of the Treatment Package

	Counselor					
Components	A	B	C	D	E	F
First Treatment Phase	3.63	4.50	4.63	2.86	3.25	4.04
Second Treatment Phase	3.88	4.18	3.99	3.24	3.13	4.21
Grand Mean	3.76	4.34	4.31	3.05	3.19	4.13

Note. Maximum score = 5.

The researcher was satisfied with the counselors' understanding of the treatment package and their implementation of the concepts and activities during the counseling sessions.

Individual Clients

Twelve clients participated in this study. Data from 11 clients were collected for the entire program. One client terminated following the first treatment phase. Another client stopped seeing the counselor

after the second meeting in the second treatment phase, but agreed to provide her weights until the end of the program. A summary of the characteristics for the 12 clients is presented in Table 5. A supplemental summary description of each client is presented in Appendix G.

Ann (Counselor E). Ann, who was 69% overweight, had been somewhat overweight all of her life and obese since her second year in college. Both parents, three of four grandparents, and all of her siblings were overweight. She had tried to lose weight several times using different methods, none of which had resulted in a permanent weight loss.

Ann missed two counseling sessions during the first treatment phase which had to be rescheduled, and stopped attending altogether after the second meeting with the counselor in the second treatment phase. No reasons were given. She did, however, agree to weigh herself at the end of the second treatment phase and at the end of the second withdrawal phase. Counselor E described their relationship as poor and stated that Ann would often act disinterested or even antagonistic during the counseling sessions. After the counseling sessions, Ann would often want to discuss her boyfriend problems.

Ann's weekly weight recording by the researcher throughout the study is presented in Figure 1. Changes and projections are noted.

Beth (Counselor C). Beth, who was 64% overweight, stated that she had never been normal weight and had always been taller and heavier than the other children her age. Her father and brothers were also described as being overweight. She had tried numerous times to lose weight and reported that the most successful she used was Weight Watchers.

Table 5

Background Information Concerning Each Client's Age, Sex, Marital Status, and Weight Factors

Client	Age	Sex	Marital Status	Final Baseline Weight	Stated Weight Loss Goal	Desired Weight	Ideal Weight[a]	Percent Overweight
Ann	21	F	S	199	74	125	118	69%
Beth	24	F	S	243	75	168	148	64%
Ken	20	M	S	276	75	201	175	58%
Fran	22	F	M	190	25	165	122	56%
Gail	20	F	S	180	60	120	125	44%
Jan	18	F	S	190	50	140	132	44%
Kris	21	F	S	176	45	131	125	41%
Lisa	22	F	S	158	45	113	115	37%
Mary	21	F	S	168	40	128	125	34%
Pat	20	F	S	176	35	141	132	33%
Tina	21	F	M	166	36	130	122	36%
Ron	23	M	M	216	60	156	170	27%
Mean	21				52			45%

[a]Determined by the 1969 U.S. Department of Agriculture desirable weights table (Stuart & Davis, 1972).

Figure 1. WEIGHT CHANGE DURING THE FIVE PHASES FOR ANN (69% Overweight). Each data point equals Ann's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 5 pounds and a reduction of 2.5% body weight during the first treatment).

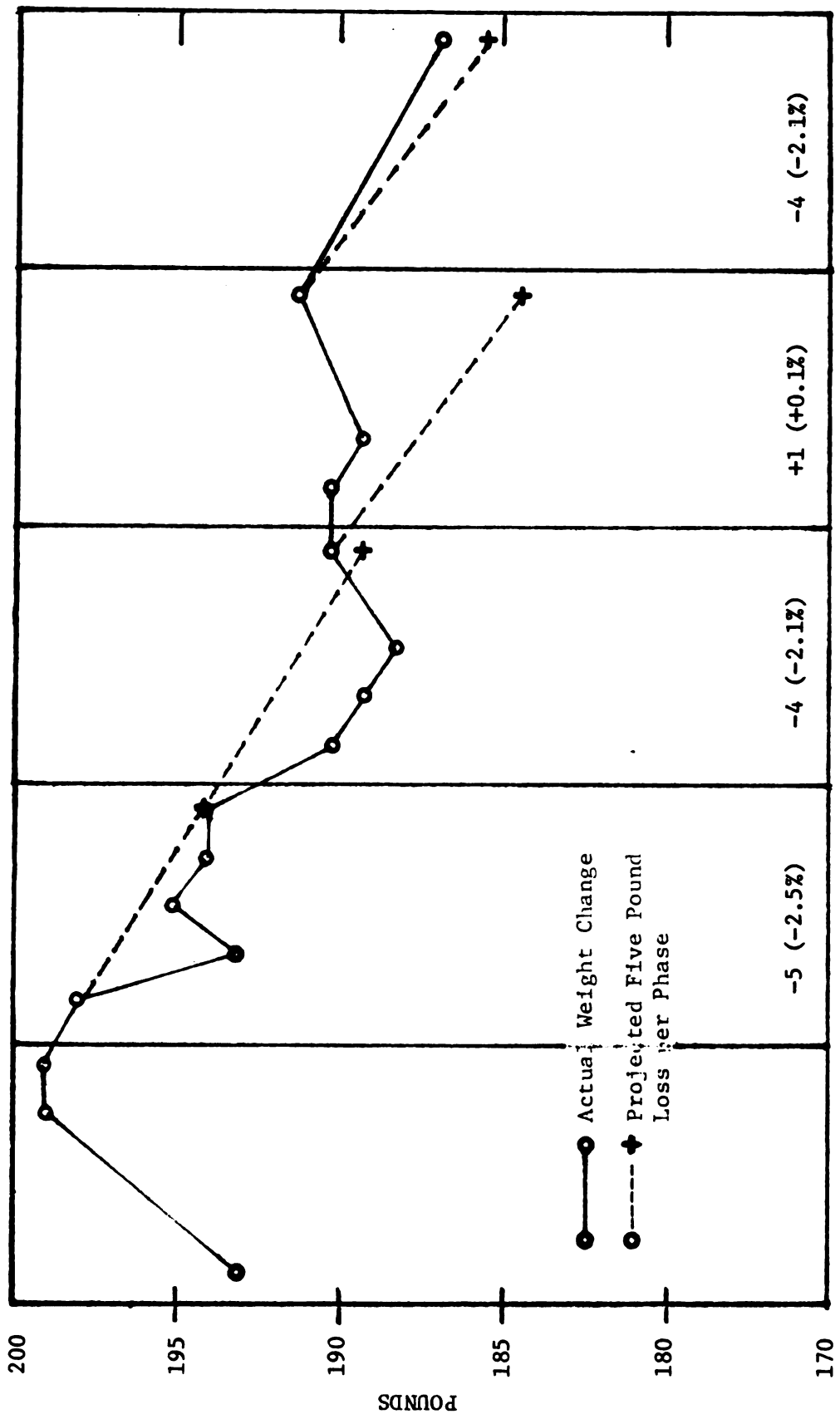

200
195
190
185
180
170
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
-5 (-2.5%)
-4 (-2.1%)
+1 (+0.1%)
-4 (-2.1%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 1

Counselor C stated that she encountered resistance from Beth which seemed to center around her religious views. Beth thought that the counselor would not understand those views and was reluctant to share her views. She also had strong feelings against self-reinforcement because of her religious views. In the fifth session, Beth stated that she was dropping out of the program because of the pressure from her classes and work and that she did not want to feel the additional pressure of trying to lose weight. Losing weight was a low priority at that point in time.

Fluctuations and projections in Beth's weight during the first treatment phase are recorded in Figure 2.

Ken (Counselor B). Ken, who was 58% overweight, had been overweight since he was 8 or 9 years old and had made two attempts to lose weight. Ken had a large emotional investment in his overweight which was closely tied to his identity. He stated that being overweight as a child created an extroverted, jolly personality and he did not want to change that aspect of himself. He was afraid that people would not respond to him in the same way when he had lost weight. Also, his overweight protected him from failure by allowing excuses. In many ways, his overweight was serving functional purposes for him.

Ken indicated that his motivation to lose weight greatly decreased during the first withdrawal phase but that the second treatment phase was very beneficial to him in understanding his behavior. He also stated that he had never been fully committed to a program to lose weight and did not see himself being successful until he was ready to make that commitment. But he stated that he now had a better

Figure 2. WEIGHT CHANGE DURING THE FIVE PHASES FOR BETH (64% Overweight). Each data point equals Beth's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 4 pounds and a reduction of 1.7% body weight during the first treatment).

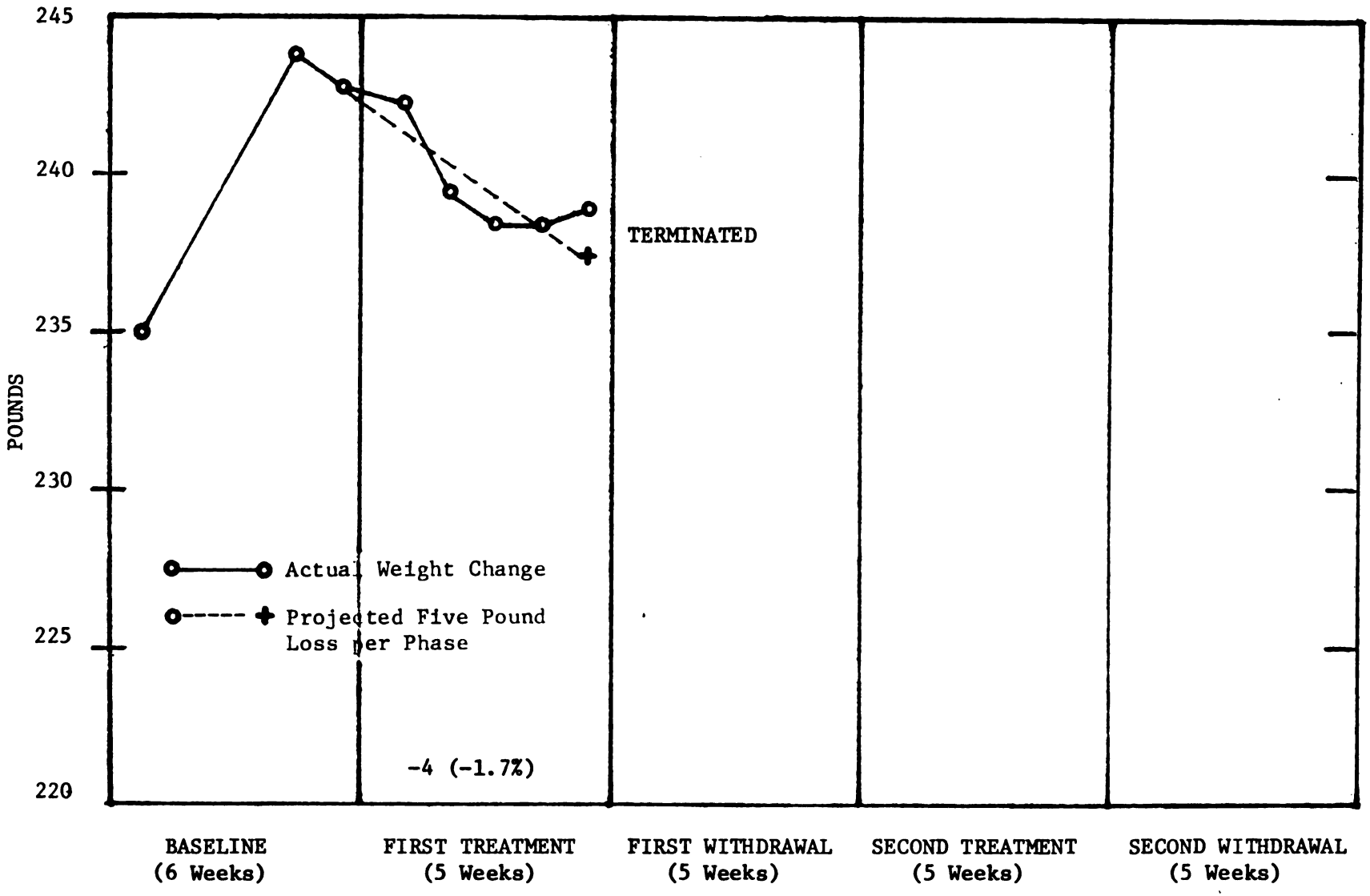

245
240
235
230
225
220
POUNDS
TERMINATED
Actual Weight Change
Projected Five Pound Loss per Phase
-4 (-1.7%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 2

understanding of what that commitment would involve.

Ken's weekly weight recording throughout the study is presented in Figure 3. Changes and projections are noted.

Fran (Counselor D). Fran, who was 56% overweight, had been overweight since childhood and stated that her whole family was or had been overweight. She had tried several different methods to lose weight but had been slowly gaining weight over the last three years.

In the beginning of the program, Fran was very enthusiastic about the treatment package and was very consistent in performing the homework assignments. She also lost 15.5 pounds during the first eight weeks. During the first withdrawal phase, her rate of weight loss slowed considerably. When she returned for the second treatment phase, her attitude and enthusiasm toward the program had decreased. From that point, Fran was not consistent in doing the homework assignments and maintaining the diet which resulted in her slowly gaining weight. Fran had some physical problems during the second treatment phase which caused her to feel pain. Her primary way of reinforcing herself when she felt pain was by eating.

Fran's weekly weight recording throughout the study is presented in Figure 4. Changes and projections are noted.

Gail (Counselor E). Gail, who was 44% overweight, had been overweight since childhood and stated that she came from a family of big eaters. Gail had seriously attempted to lose weight two or three times by using the Mayo diet and exercise. Gail understood the concepts of the treatment package very well but would perform the assignments only if it was convenient. Gail was more consistent in

Figure 3. WEIGHT CHANGE DURING THE FIVE PHASES FOR KEN (58% Overweight). Each data point equals Ken's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 14 pounds and a reduction of 5.1% body weight during the first treatment).

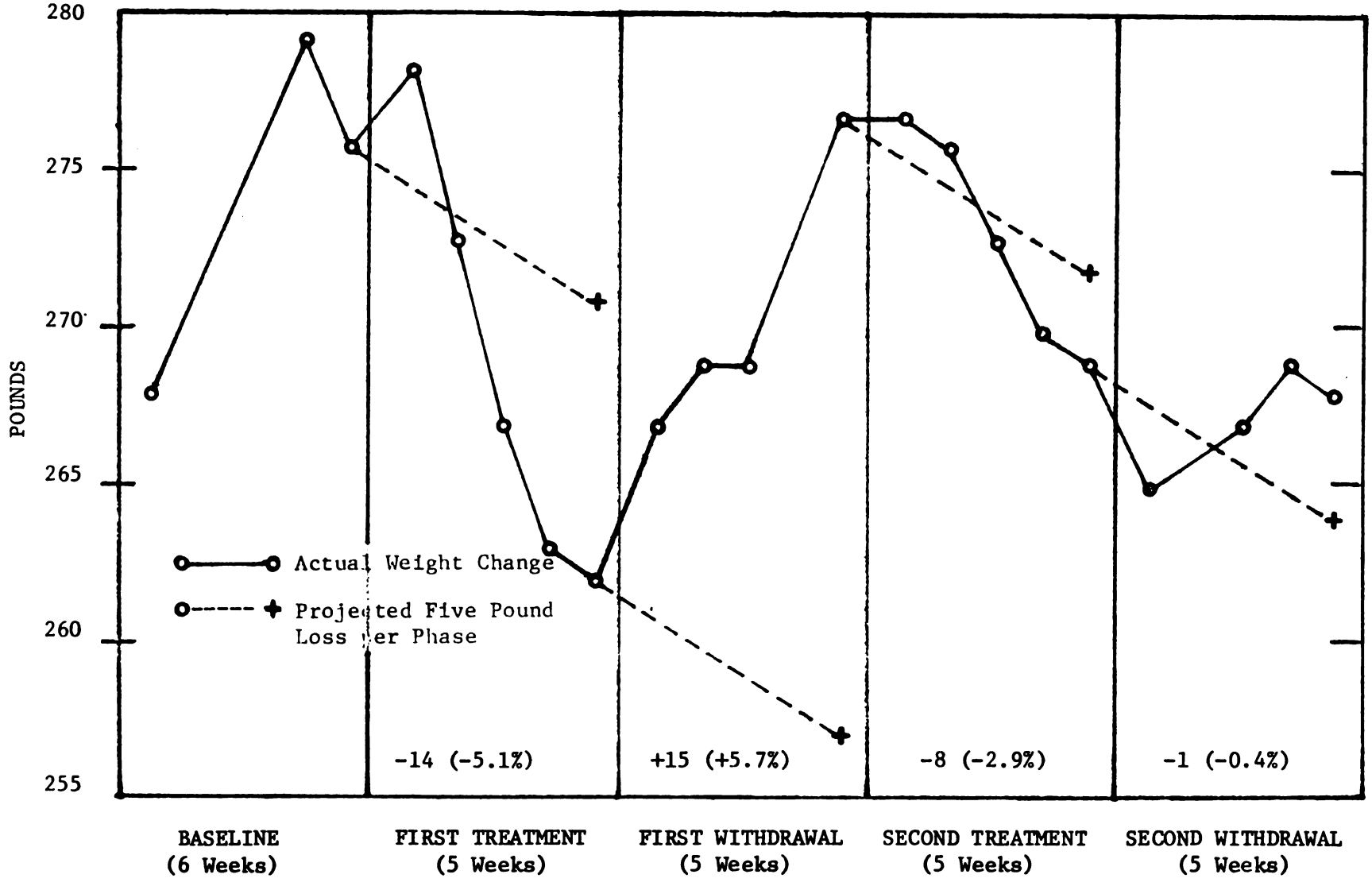

280
275
270
265
260
255
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
-14 (-5.1%)
+15 (+5.7%)
-8 (-2.9%)
-1 (-0.4%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 3

Figure 4. WEIGHT CHANGE DURING THE FIVE PHASES FOR FRAN (56% Overweight). Each data point equals Fran's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 12 1/2 pounds and a reduction of 6.6% body weight during the first treatment).

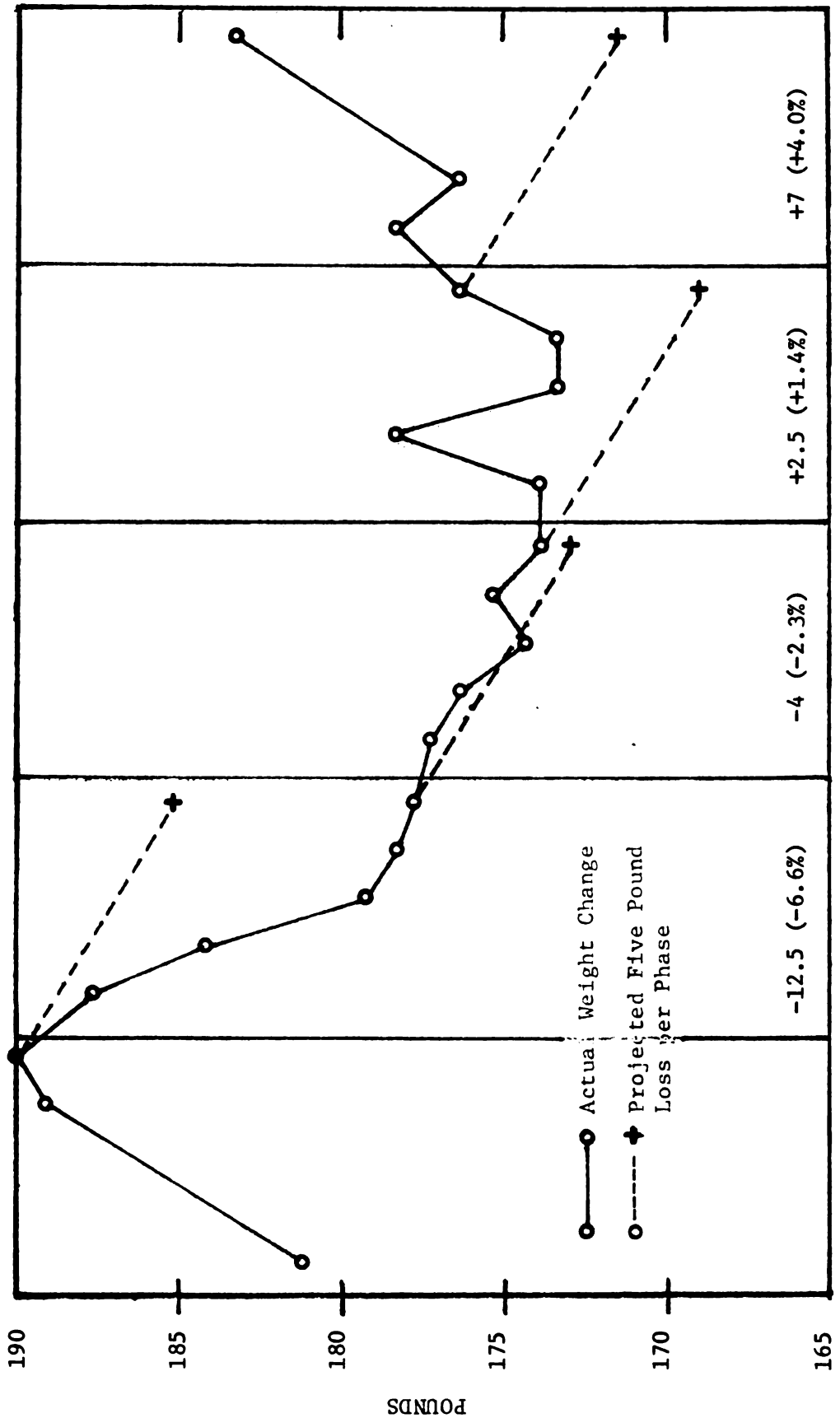

190
185
180
175
170
165
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
-12.5 (-6.6%)
FIRST WITHDRAWAL (5 Weeks)
-4 (-2.3%)
SECOND TREATMENT (5 Weeks)
+2.5 (+1.4%)
SECOND WITHDRAWAL (5 Weeks)
+7 (+4.0%)

Figure 4

performing the weight loss activities during the first treatment phase than during the remaining phases. Her inconsistency kept her from losing weight at a faster rate. Even though she only lost a meaningful amount of weight during the first treatment phase, she continued to lose weight over the remaining phases, which was an encouraging sign.

Gail's weekly progress throughout the study is presented in Figure 5. Weight changes and projections are noted.

Jan (Counselor E). Jan, who was 44% overweight, had been overweight since junior high school and had tried numerous times to lose weight. She had used several different methods, none of which had been very effective. When she entered this program, she weighed the highest in her life.

In the beginning, Jan had a passive, skeptical attitude toward the program, but being successful during the first treatment and withdrawal phases gave her confidence that she could succeed at losing weight. Jan was very goal-oriented and was more successful at losing weight when she had a set routine. She was very consistent in maintaining the diet, implementing an exercise program, and performing the other assigned activities.

Jan showed a steady weight loss during the two treatment phases and the first withdrawal phase. She also showed a loss at the beginning and the end of the second withdrawal phase, which is encouraging. Jan's weekly weight recording throughout the study is presented in Figure 6. Changes and projections are noted.

Figure 5. WEIGHT CHANGE DURING THE FIVE PHASES FOR GAIL (44% Overweight). Each data point equals Gail's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 7 pounds and a reduction of 3.9% body weight during the first treatment).

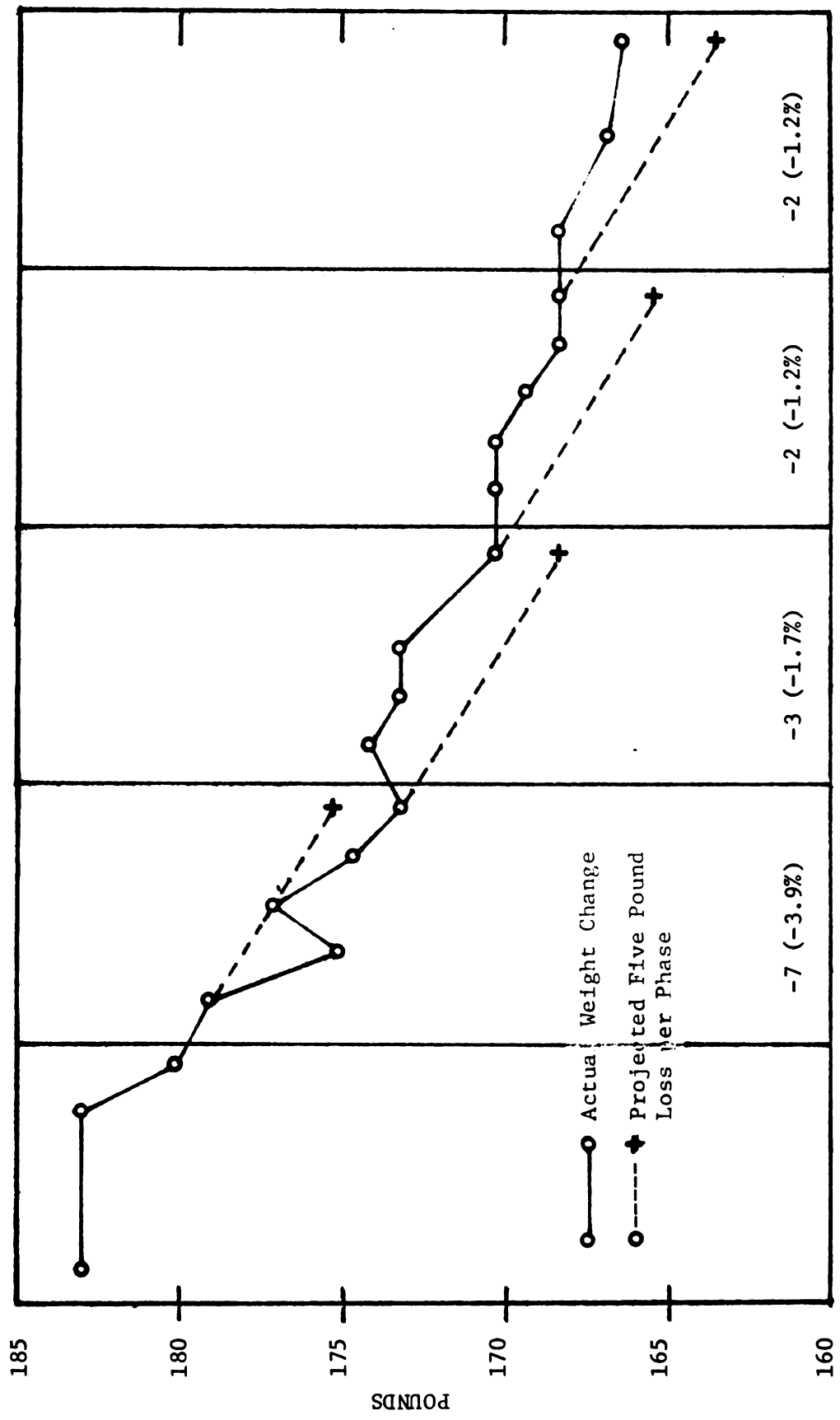

185
180
175
170
165
160
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
-7 (-3.9%)
-3 (-1.7%)
-2 (-1.2%)
-2 (-1.2%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 5

Figure 6. WEIGHT CHANGE DURING THE FIVE PHASES FOR JAN (44% Overweight). Each data point equals Jan's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 4 pounds and a reduction of 2.1% body weight during the first treatment).

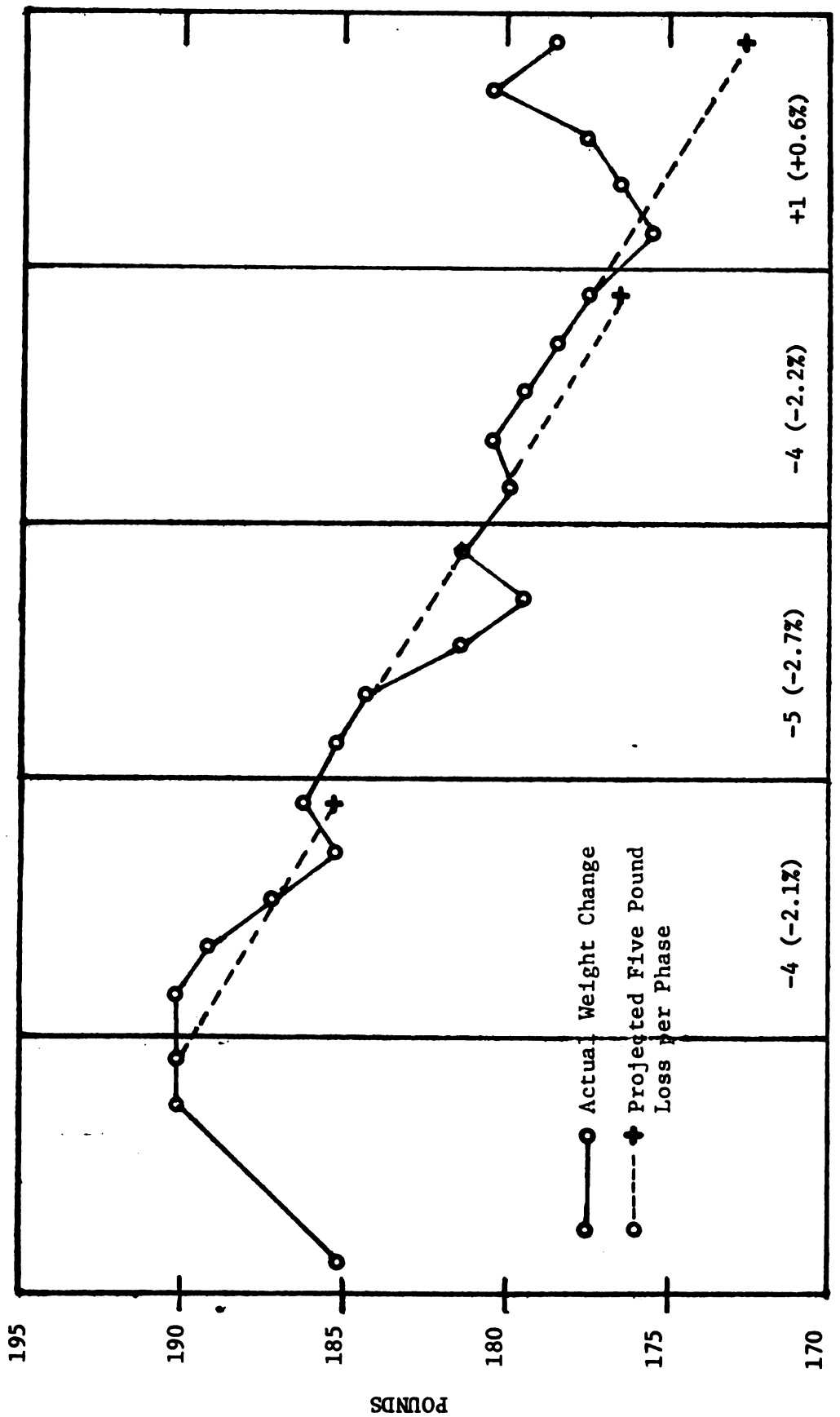

195
190
185
180
175
170
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
-4 (-2.1%)
FIRST WITHDRAWAL (5 Weeks)
-5 (-2.7%)
SECOND TREATMENT (5 Weeks)
-4 (-2.2%)
SECOND WITHDRAWAL (5 Weeks)
+1 (+0.6%)

Figure 6

Kris (Counselor C). Kris, who was 41% overweight, weighed 110 pounds in 1970, and in approximately two years gained 70 pounds. She had tried to lose weight five or six times by counting calories, water and protein diet, food exchange diet, and exercise.

During the treatment phase, Kris disclosed that she had a hormone problem which was the cause of her weight problem. She returned to Dr. Mary Ryan, Michigan State University Health Center, the consulting physician for the study. Dr. Ryan referred Kris to her family doctor, who had been aware of the problem since 1970. Because of her hormonal dysfunction, when under stress she would gain weight even on a low calorie diet. Kris stated that her family doctor encouraged her to continue the program with the goal of maintaining her weight through a low calorie diet and exercise. In September, she is to undergo a series of treatments for her condition.

Unfortunately, Kris's health problems were not detected during the process of screening subjects for the study. Her weekly progress throughout the study is presented in Figure 7. Weight changes and projections are noted.

Lisa (Counselor A). Lisa, who was 37% overweight, had been overweight since childhood. Lisa stated that she had tried to lose weight on innumerable occasions. Her primary strategy was the use of special diets. She stated that she liked to eat and attempted to alleviate her depression and feelings of tension by eating.

Lisa was very inconsistent in maintaining the diet and performing the assigned activities. The most she stayed on the diet was four days during any one week. Lisa was not bothered that she was not

Figure 7. WEIGHT CHANGE DURING THE FIVE PHASES FOR KRIS (41% Overweight). Each data point equals Kris's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a gain of 1 pound and an increase of 0.6% body weight during the first treatment).

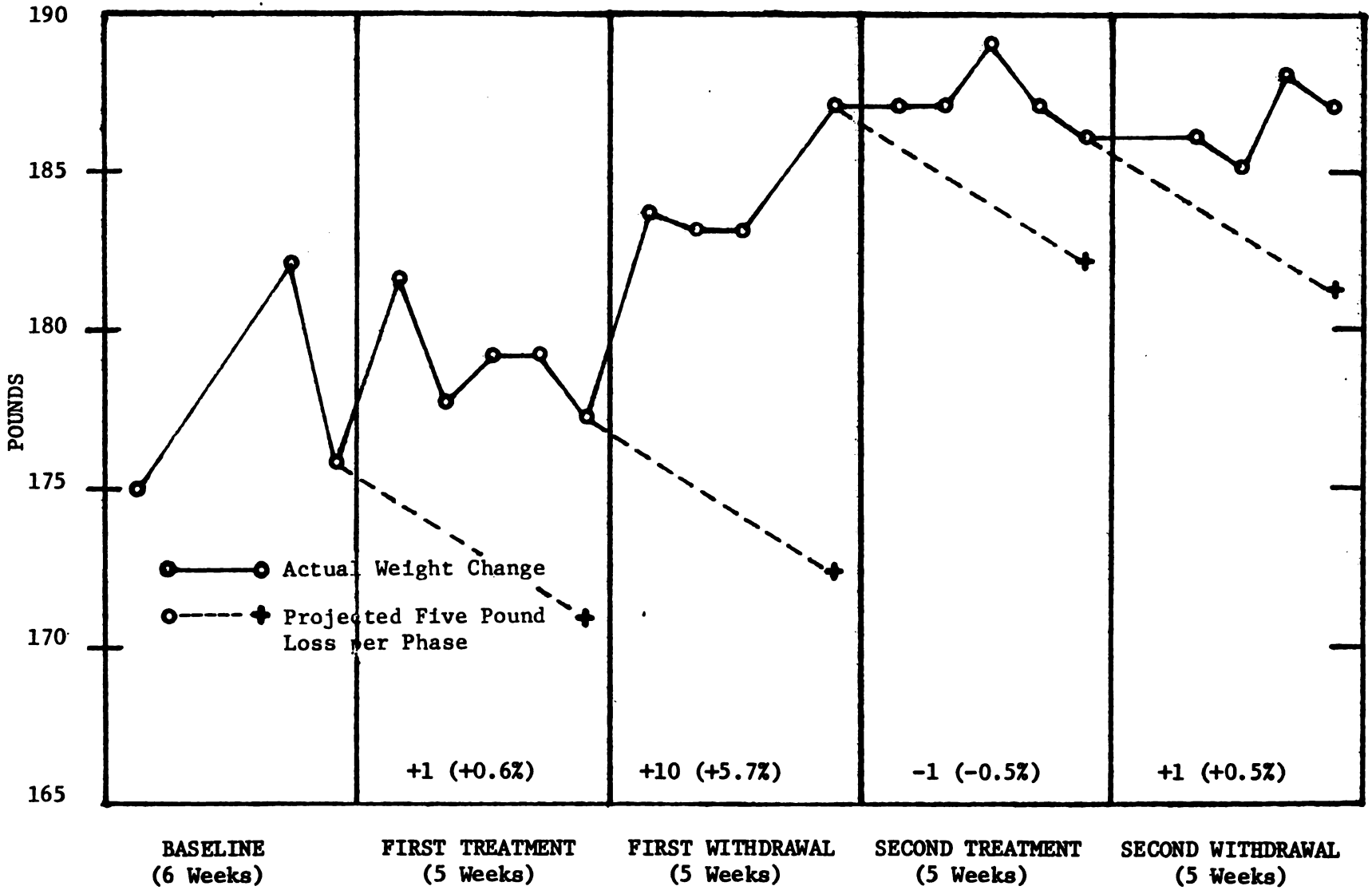

190
185
180
175
170
165
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
+1 (+0.6%)
+10 (+5.7%)
-1 (-0.5%)
+1 (+0.5%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 7

losing weight and stated that she was getting satisfaction from just trying. Counselor A thought that Lisa had several other personal problems such as depression, ambivalent feelings about marriage, and seeking career employment, which interfered with her ability to lose weight.

Lisa's weekly weight recording throughout the study is presented in Figure 8. Changes and projections are noted.

Mary (Counselor A). Mary, who was 34% overweight, reported that her weight problem developed during the latter part of high school and that she gained 40 pounds her freshman year in college. She stated that food had played an important role in her family since they did not have many material goods. Mary reported that six of eight family members were overweight. She had tried many times to lose weight, none of which had been very successful.

Mary did well for the first six weeks of the program. She stated that during the second or third week of the first withdrawal phase she stopped trying to maintain the diet and she felt depressed and did not care about anything. During the second treatment phase, Mary would negate any suggestion offered by the counselor and held an attitude that she could not succeed.

Mary's weekly progress throughout the study is presented in Figure 9. Weight changes and projections are noted.

Pat (Counselor D). Pat, who was 33% overweight, had been heavy as a child, but her present weight problem began in her senior year of high school. She had tried to lose weight five or six times, primarily through the use of special diets and exercise. Pat reported that her negative self-image and lack of self-confidence played a role

Figure 8. WEIGHT CHANGE DURING THE FIVE PHASES FOR LISA (37% Overweight). Each data point equals Lisa's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 1 pound and a reduction of 0.6% body weight during the first treatment).

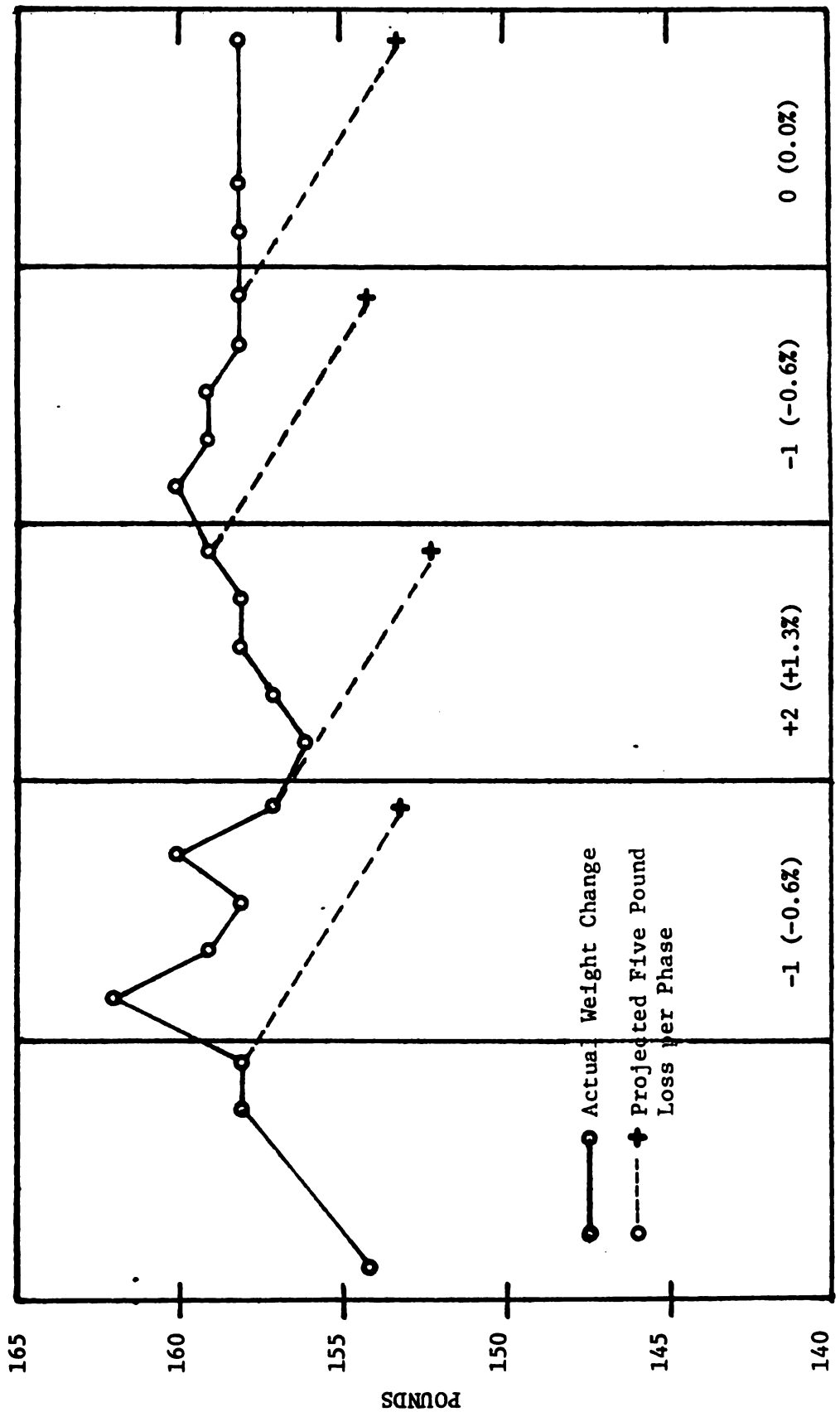

165
160
155
150
145
140
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
-1 (-0.6%)
FIRST WITHDRAWAL (5 Weeks)
+2 (+1.3%)
SECOND TREATMENT (5 Weeks)
-1 (-0.6%)
SECOND WITHDRAWAL (5 Weeks)
0 (0.0%)

Figure 8

Figure 9. WEIGHT CHANGE DURING THE FIVE PHASES FOR MARY (34% Overweight). Each data point equals Mary's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 5 pounds and a reduction of 3.0% body weight during the first treatment.

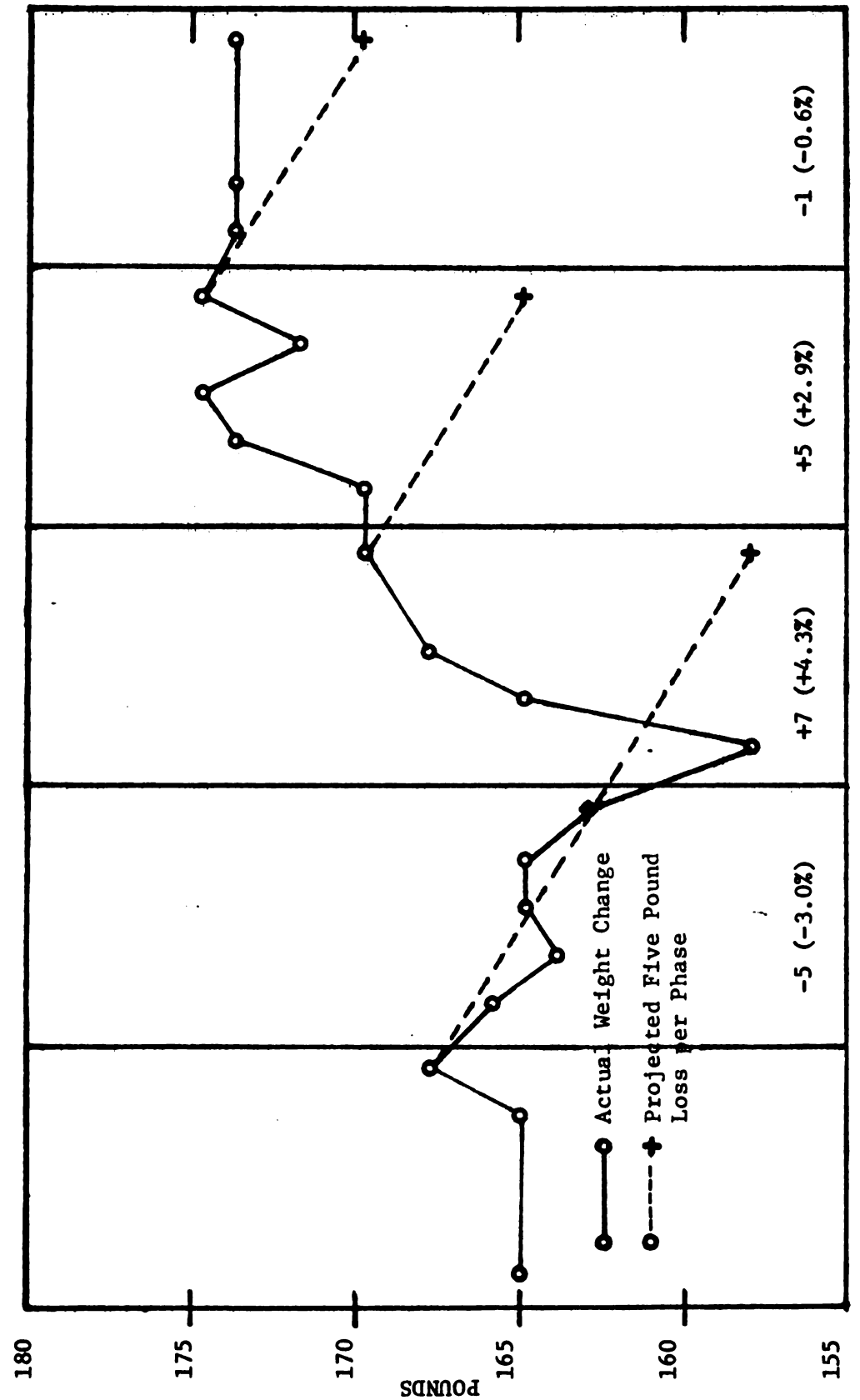

180
175
170
165
160
155
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
-5 (-3.0%)
FIRST WITHDRAWAL (5 Weeks)
+7 (+4.3%)
SECOND TREATMENT (5 Weeks)
+5 (+2.9%)
SECOND WITHDRAWAL (5 Weeks)
-1 (-0.6%)

Figure 9

in her unsuccessful attempts to lose weight and that she ate when she was depressed or bored.

Pat was very inconsistent in doing the record-keeping, and attempted some of the assignments in a half-hearted way. She wanted more from the counselor than help with her weight problems and often wanted to talk about many other kinds of problems. Pat reported that she felt guilty when she was not trying to lose weight. Therefore, being in this program removed those guilt feelings, which may have been one payoff for her.

Pat's weekly weight recording throughout the study is presented in Figure 10. Changes and projections are noted.

Tina (Counselor E). Tina, who was 36% overweight, described herself as being overweight since the first grade. Tina stated that anytime she felt upset she would eat, and that being fat gave her an excuse for not being liked and for not winning. Tina had tried numerous times to lose weight, with the most successful attempt being in her first year of college. She lost 25 pounds.

Tina understood and accepted the concepts of the treatment package very well. She had a background in behavioral psychology. Tina was very consistent in performing the weekly assignments during the first treatment and the first withdrawal phase and lost a meaningful amount of weight during both phases. During the second treatment phase, she had more difficulty maintaining the diet, and her weight loss leveled off. But during the second withdrawal phase, Tina continued to lose weight, which is encouraging.

Tina's weekly progress throughout the study is presented in

Figure 10. WEIGHT CHANGE DURING THE FIVE PHASES FOR PAT (33% Overweight). Each data point equals Pat's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 6 pounds and a reduction of 3.4% body weight during the first treatment).

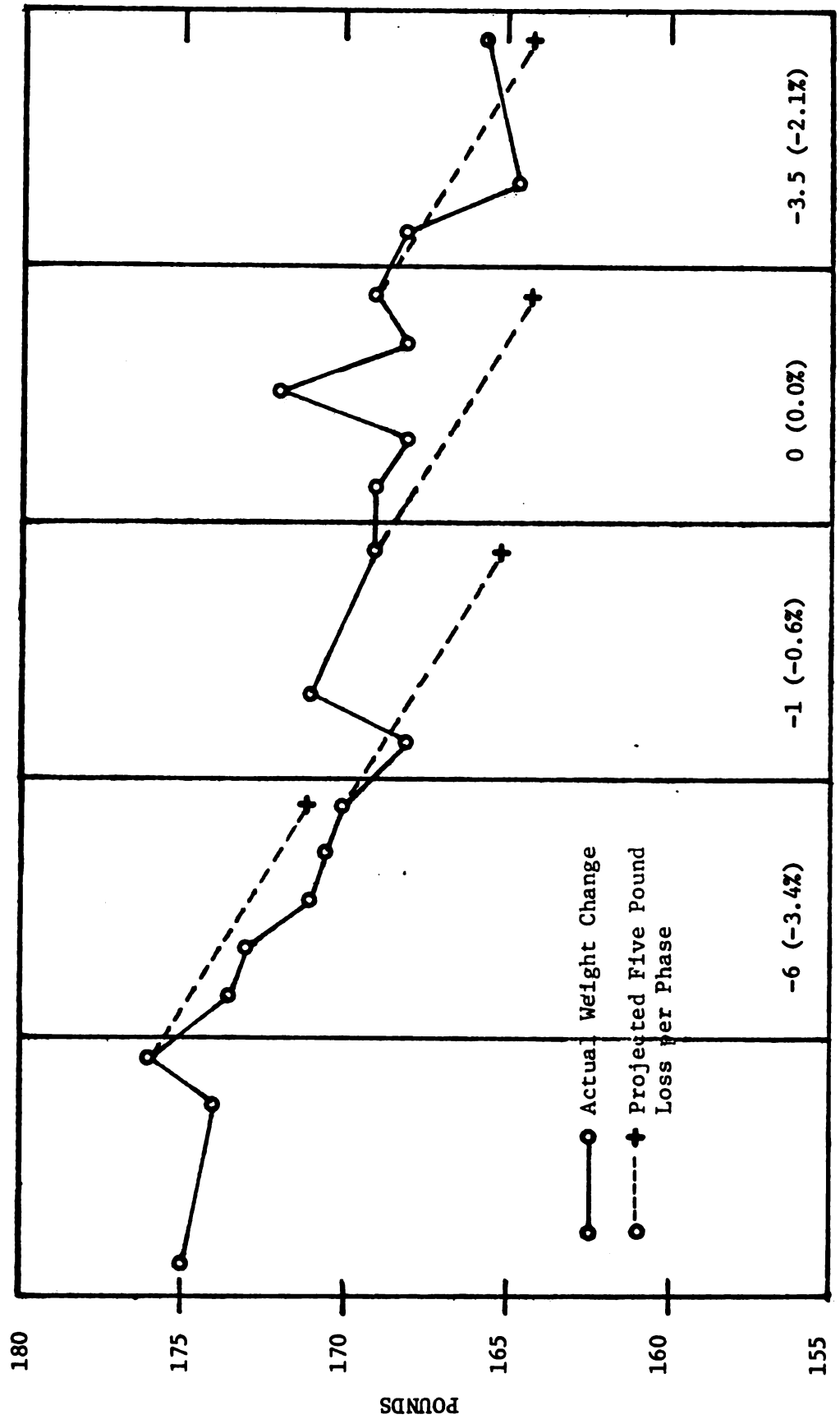

180
175
170
165
160
155
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
-6 (-3.4%)
-1 (-0.6%)
0 (0.0%)
-3.5 (-2.1%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 10

Figure 11. Weight changes and projections are noted.

Ron (Counselor B). Ron, who was 27% overweight, stated that the first time he felt overweight was when he became a lifeguard at age 17. He had tried to lose weight three times, with the last attempt being four years ago.

During the first treatment phase, Ron was highly motivated and kept very careful records regarding his diet. He tended to see the diet as a challenge to him. He did well on the program until the fourth and fifth week of the first withdrawal phase, which coincided with final examinations and quarter break. At that time, Ron reported that he reverted back to his old eating habits. Ron also stated that the significant initial weight loss reduced his motivation for further weight loss. From that point, Ron slowly regained some of his lost weight.

Ron's weekly weight recording throughout the study is presented in Figure 12. Changes and projections are noted.

The pound and percentage weight changes for each client during the two treatment phases and the two withdrawal phases are presented in Table 6.

The total pound and percentage weight changes for each client over the entire program are presented in Table 7.

Figure 11. WEIGHT CHANGE DURING THE FIVE PHASES FOR TINA (36% Overweight). Each data point equals Tina's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 7 1/2 pounds and a reduction of 4.5% body weight during the first treatment).

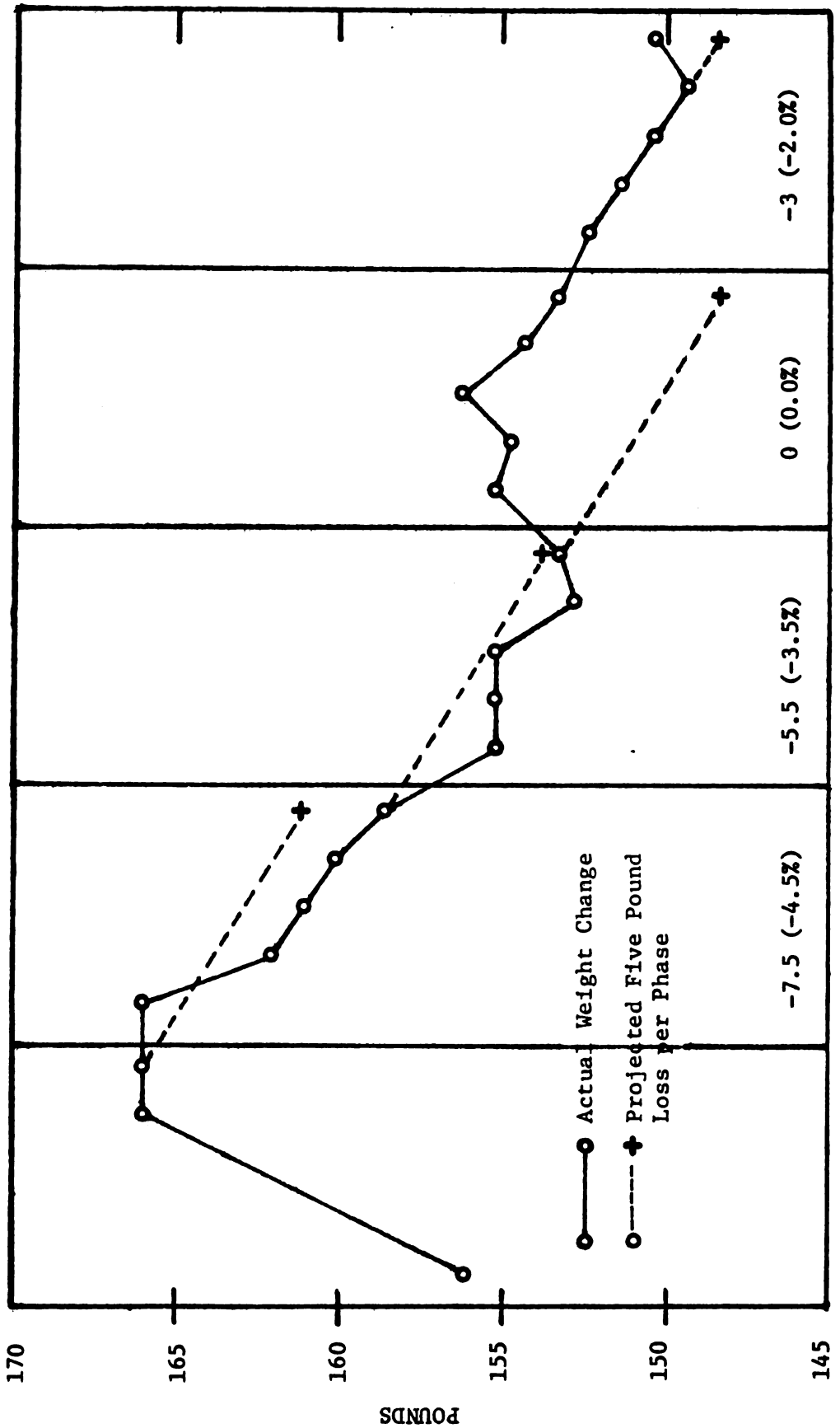

POUNDS
170
165
160
155
150
145
Actual Weight Change
Projected Five Pound Loss per Phase
-7.5 (-4.5%)
-5.5 (-3.5%)
0 (0.0%)
-3 (-2.0%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 11

Figure 12. WEIGHT CHANGE DURING THE FIVE PHASES FOR RON (27% Overweight). Each data point equals Ron's weight at that time during each phase. The change in pounds and percentage body weight is presented at the bottom of each phase (e.g., a loss of 11 pounds and a reduction of 5.1% body weight during the first treatment).

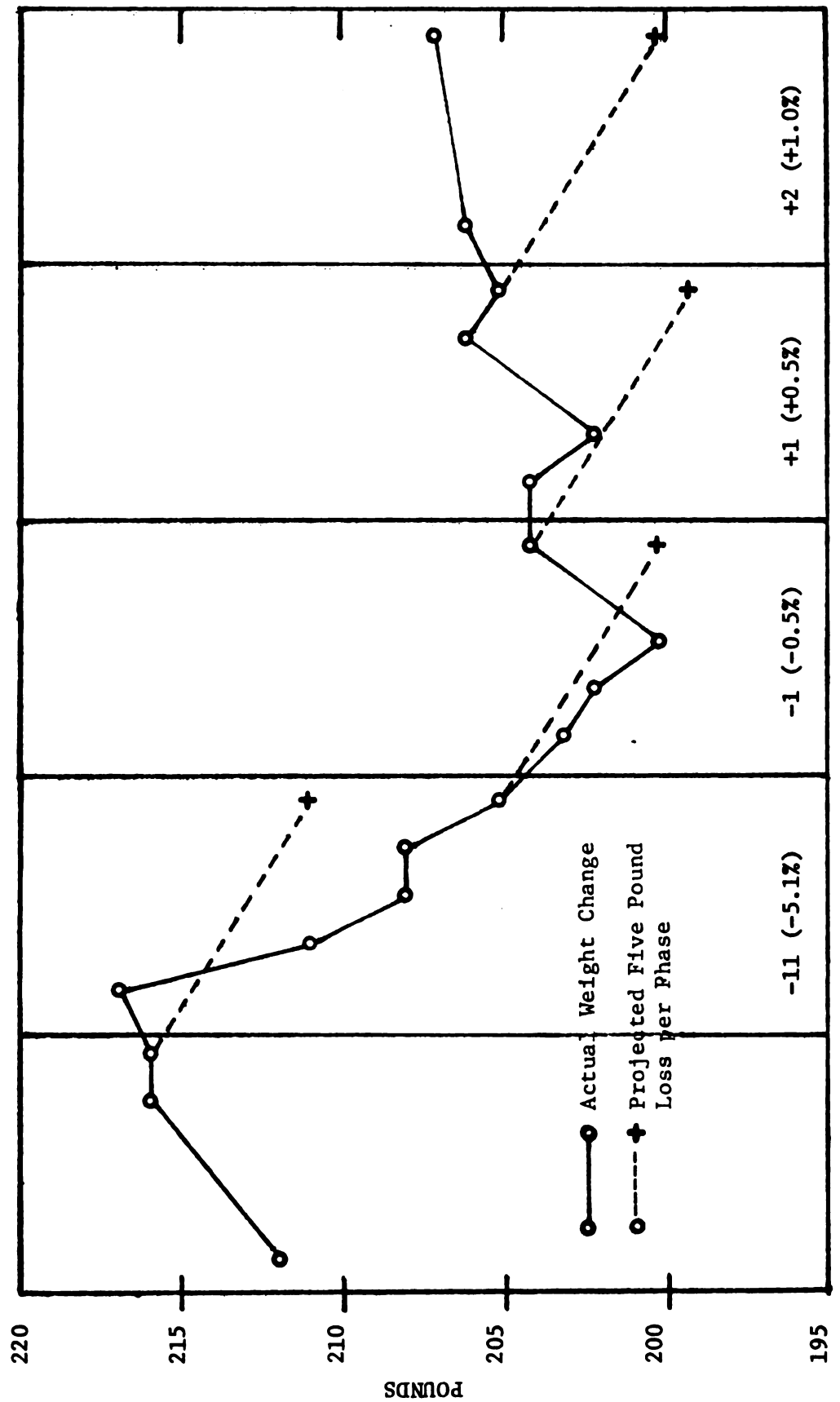

220
215
210
205
200
195
POUNDS
Actual Weight Change
Projected Five Pound Loss per Phase
-11 (-5.1%)
-1 (-0.5%)
+1 (+0.5%)
+2 (+1.0%)
BASELINE (6 Weeks)
FIRST TREATMENT (5 Weeks)
FIRST WITHDRAWAL (5 Weeks)
SECOND TREATMENT (5 Weeks)
SECOND WITHDRAWAL (5 Weeks)

Figure 12

Table 6

Pound and Percentage Weight Change during Each Phase for Each Client

Client	Final Baseline Weight	Phase T-1 lbs	T-1 %	W-1 lbs	W-1 %	T-2 lbs	T-2 %	W-2 lbs	W-2 %	Weight at End of Project
Ann	199	-5	2.5	-4	2.1	+1	0.1	-4	2.1	187
Beth	243	-4	1.7	--	--	--	--	--	--	239
Ken	276	-14	5.1	+15	5.7	-8	2.9	-1	0.4	268
Fran	190	-12.5	6.6	-4	2.3	+2.5	1.4	+7	4.0	183
Gail	180	-7	3.9	-3	1.7	-2	1.2	-2	1.2	166
Jan	190	-4	2.1	-5	2.7	-4	2.2	+1	0.6	178
Kris	176	+1	0.6	+10	5.7	-1	0.5	+1	0.5	187
Lisa	158	-1	0.6	+2	1.3	-1	0.6	0	0.0	158
Mary	168	-5	3.0	+7	4.3	+5	2.9	-1	0.6	174
Pat	176	-6	3.4	-1	0.6	0	0.0	-3.5	2.1	165.5
Tina	166	-7.5	4.5	-5.5	3.5	0	0.0	-3	2.0	150
Ron	216	-11	5.1	-1	0.5	+1	0.5	+2	1.0	207

Table 7

Total Pound and Percentage Weight Change for Each Client

Client	Final Baseline Weight	Weight Change in Pounds	Percentage of Body Weight Change
Ann	199	-12	-6.0
Beth	243	-4	-1.7
Ken	276	-8	-2.9
Fran	190	-7	-3.7
Gail	180	-14	-7.8
Jan	190	-12	-6.3
Kris	176	+11	+6.3
Lisa	158	0	0.0
Mary	168	+6	+3.6
Pat	176	-10.5	-6.0
Tina	166	-16	-9.6
Ron	216	-9	-4.2

Individual Client Hypotheses

Hypotheses 1 through 5 predict a meaningful amount of weight loss for each client at different phases of the study and over the entire study. Each hypothesis was considered according to the number of clients who supported it.

Hypothesis 1. Each individual will show a 20-pound or 10% weight reduction from the end of the baseline phase to the end of the second withdrawal phase.

This hypothesis was accepted for 0 of 11 clients.

Hypothesis 2. Each individual will show a five-pound or 2 1/2%

weight reduction during the first treatment phase.

This hypothesis was accepted for 8 of 12 clients.

Hypothesis 3. Each individual will show a five-pound or 2 1/2% weight reduction during the first withdrawal phase.

This hypothesis was accepted for 2 of 11 clients.

Hypothesis 4. Each individual will show a five-pound or 2 1/2% weight reduction during the second treatment phase.

This hypothesis was accepted for 1 of 11 clients.

Hypothesis 5. Each individual will show a five-pound or 2 1/2% weight reduction during the second withdrawal phase.

This hypothesis was accepted for 0 of 11 clients.

A summary of Hypothesis 1 through 5 for each client is presented in Table 8.

Table 8

Analysis of Hypotheses 1 through 5 for Each Client

Client	H_1^a	H_2^b	H_3^b	H_4^b	H_5^b
Ann	no	yes	no	no	no
Beth	--	no	--	--	--
Ken	no	yes	no	yes	no
Fran	no	yes	no	no	no
Gail	no	yes	no	no	no
Jan	no	no	yes	no	no
Kris	no	no	no	no	no
Lisa	no	no	no	no	no
Mary	no	yes	no	no	no
Pat	no	yes	no	no	no
Tina	no	yes	yes	no	no
Ron	no	yes	no	no	no

[a]The client had to lose 20 pounds or 10% of body weight in order to be accepted.

[b]The client had to lose five pounds or 2 1/2% of body weight in order to be accepted.

Group Data and Hypotheses

The mean weight change, variance, and standard deviation during each phase for 10 clients are presented in Table 9. Beth, who terminated after the first treatment phase, and Kris, who had complicating health problems, are not included in the totals.

Table 9

Pound and Percent Weight Change for All Clients during Each Phase

	Phase				
	T_1	W_1	T_2	W_2	Total
Mean					
Pounds	-7.30	+0.05	-0.55	-0.45	-8.25
Percent	-3.7	-0.2	-0.2	-0.3	-4.3
Variance					
Pounds	16.54	41.80	12.80	10.58	44.40
Percent	3.0	9.4	2.8	3.4	14.8
Standard Deviation					
Pounds	4.06	6.46	3.58	3.25	6.66
Percent	1.7	3.1	1.7	1.9	3.9

Note. Two clients are not included in these results. Beth terminated at the end of the first treatment phase, and Kris had complicating health problems.

Analysis of variance (ANOVA) with repeated measures was performed on the mean pound weight change in order to test the following hypotheses with an alpha level of .05. The multivariate test was significant, F (3,7) = 5.71, p <.03.

Hypothesis 6 . There will be no difference in the mean weight loss for all clients during the first treatment phase and the mean weight loss for all clients during the first withdrawal phase ($T_1 - W_1 = 0$).

This hypothesis was rejected, F (1, 9) = 7.22, p <.02. The mean weight loss during the first treatment phase was significantly greater than during the first withdrawal phase.

Hypothesis 7. There will be no difference in the mean weight loss for all clients during the second treatment phase and the mean weight loss for all clients during the second withdrawal phase

$(T - W_2 = 0)$.

This hypothesis was not rejected, $\underline{F}$ (1, 9) = .01, $\underline{p}$ <.95.

Hypothesis 8. There will be no difference in the mean weight loss for all clients during the first treatment and the first withdrawal phases combined, as opposed to the second treatment and the second withdrawal phases combined $[(T_1 + W_1) - (T_2 + W_2)] = 0$.

This hypothesis was not rejected, $\underline{F}$ (1, 9) = 4.19, $\underline{p}$ <.07.

Posttreatment Questionnaire

At the end of the second withdrawal phase, all of the clients except two (Ann and Beth) completed a questionnaire assessing their reactions to the program (see Appendix F for questionnaire). The purpose of the questionnaire was to assess changes in the clients' motivation and their understanding and reactions to various aspects of the program. The clients were also interviewed by the researcher in order to get their reaction to the treatment package and the procedures that were followed. They were asked the following questions: (a) What did you like and dislike about the program? (b) How did you respond to working alone as opposed to working with a counselor? (c) What effects did the withdrawal phases have on you? (d) Were there any benefits or satisfactions from being on your own? (e) Has your approach to losing weight changed as a result of this program? If yes, how has it changed? (f) If you gained weight during the baseline phase, what was the reason? Did the anticipation of the program have any effect? and (g) Would you prefer working individually with a counselor or in a small group? These data were used to help understand the clients' behavior during this study and to evaluate the

treatment package.

In order to get a better understanding of how the clients' motivation specifically varied during the study, they were asked to rate their level of motivation during each phase. Data were collected concerning the phase of the study in which each client felt most likely to succeed and most likely to fail, as well as the phase in which the highest and lowest motivation was reported by the client. These data are presented in Table 10. The clients were also asked to explain what caused the change in their motivation during the different phases of the study.

Table 10

Number of Responses for Each Phase in Which Clients Thought They Would Succeed and Fail; Phase in Which Clients' Highest and Lowest Motivation Occurred; and Mean Motivation Rating for Each Phase

Phase	Expected Success	Expected Failure	Highest Motivation[a]	Lowest Motivation[a]	Mean Motivation Rating[b]
Baseline	2	2	5	3	3.8
Treatment 1	3	0	3	0	4.2
Withdrawal 1	1	4	0	4	2.9
Treatment 2	2	2	1	1	3.4
Withdrawal 2	1	1	0	1	3.2

Note. Kris is not included in the tally because of her complicating health problems.

[a]If two or more phases tied for highest or lowest ranking, the first phase in which the ranking occurred was tallied.

[b]The rating is based on a 5-point scale, with 1 indicating very low and 5 indicating very high.

The number of times the clients rated their motivation in a particular phase as being lower than their motivation in the previous

phase is presented in Table 11. For example, two of nine clients rated their motivation as lower during the first treatment phase than during the baseline phase, and eight of nine clients rated their motivation as lower during the first withdrawal phase than during the first treatment phase.

Table 11

Number of Times the Clients' Motivation Was Rated Lower in a Phase of the Study Than It Had Been Rated in the Previous Phase

Treatment 1	Withdrawal 1	Treatment 2	Withdrawal 2
2	8	4	3

Note. Maximum score = 9. Kris is not included in the tally because of her complicating health problems.

The clients' mean self-rating of how well they implemented five concepts of the treatment package is presented in Table 12. The five treatment concepts were: (a) the diet plan, (b) increased exercise, (c) self-statements, (d) exercising choice in their eating behavior, and (d) self-instruction. A rating scale of 1 to 5 was used, with 1 indicating the concept was not used and 5 indicating the concept was used extensively. The clients' rating is matched with their total weight change during the program.

Summary

Capsule summaries of each client were presented, along with graphs which indicated each client's weekly weight change throughout the study. The individual client hypotheses were considered according to the number of clients who lost a meaningful amount of weight, as

Table 12

Clients' Mean Self-Rating of How Well Five Treatment Concepts Were Implemented[a]

Client	Total Weight Change	Mean Implementation Self-Rating	Implementation Rating for Each Third[b]
Tina	-16	3.8	
Gail	-14	3.6	3.87
Jan	-12	4.2	
Pat	-10.5	3.4	
Ron	-9	2.4	2.87
Ken	-8	2.8	
Fran	-7	3.2	
Lisa	0	2.4	2.80
Mary	+6	2.8	

Note. Maximum mean self-rating score = 5. Kris is not included in the scores because of her complicating health problems.

[a]These ratings are matched with the clients' total weight change.

[b]The nine clients were divided into thirds according to their ranked distribution of total weight change.

as well as the analysis of the group data and posttreatment questionnaire.

The trends that appear in the data, relevant client variables, and the implications of these findings for the treatment of obesity and self-management procedures for weight control are discussed in Chapter 4.

CHAPTER 4

DISCUSSION AND IMPLICATIONS

Summary

The purpose of this study was two-fold: (a) to evaluate the short-term effectiveness of a combined model of self-management for weight control which stressed cognitive concepts, and (b) to identify potentially relevant client variables that may be related to the success or failure of the clients to implement the treatment package. Little research has been reported on either the short- or the long-term effectiveness of a combined self-management package for weight control. It is assumed that self-management treatment packages may be more potent if they combine the relevant aspects of the operant and cognitive models.

If the purpose of self-management procedures is to teach clients how to control their own behavior, one would expect that clients, following formal treatment, could continue to lose weight until their goal is reached and be able to maintain their new weight. Most studies indicate that clients will lose weight during formal treatment using self-management procedures, but they fail to continue losing weight after treatment and, in many cases, will regain the lost weight. Consequently, this study was designed to determine how effectively clients can lose weight on their own following contact with a counselor. The

self-management procedures were taught in two five-week treatment phases, with a five-week withdrawal of treatment following each phase in which the clients had no contact with the counselors. During the two five-week treatment phases the clients met individually with their counselor once per week. A total of 10 treatment sessions were held. It is assumed that, in order for clients to be successful in the long term, they first must be successful in the short term. A minimum weight loss of five pounds or 2 1/2% body weight during each treatment and withdrawal phase was considered meaningful.

Research on relevant client variables that relate to the success or failure in self-management weight control programs is severely lacking. Clients vary considerably in their responsiveness to self-management weight control programs, which suggests that client variables are important and deserve attention. This study, through an intensive case design, was undertaken to identify some client variables that may contribute to the success or failure of this self-management weight control program.

Discussion

The results of this study did not support the efficacy of the self-management treatment package to produce meaningful weight loss in the absence of a counselor. Only two of 11 clients lost five or more pounds (or 2 1/2% body weight) during the first withdrawal phase, and none of them lost five or more pounds (or 2 1/2% body weight) during the second withdrawal phase. If the purpose of self-management procedures is to teach clients how to control their own behavior, weight loss during the withdrawal phases would be expected. These results are consistent with

Jeffrey's (in press) observations that no self-management study has demonstrated continued weight loss following the treatment phase.

However, some encouraging results were noted. Eight of 10 clients lost weight over the total program, and five clients lost 10 or more pounds. During the first withdrawal phase, two clients (Jan and Tina) were successful in losing a meaningful amount of weight, and two clients (Ann and Fran) missed losing a meaningful amount by one pound. Five of 11 clients lost three or more pounds during the first withdrawal phase. Several clients did well at the beginning of the first withdrawal phase and then lost their momentum. Several reasons might account for this change in behavior. The five weeks of the first withdrawal phase coincided with the last three weeks of classes during the winter term, a week of final examinations, and a week of quarter break. Since students typically experience more pressure during the last few weeks of a term with papers, projects, and final examinations, and since quarter break is associated with vacation, the clients may have found it more difficult under these conditions to maintain the weight control program on their own. This may be especially true after only five treatment sessions. Also, contact with a counselor during treatment may be a motivating factor to the clients. As the withdrawal phase progressed, the contact with the counselor became more remote and the clients' motivation or enthusiasm may have waned. In support of these comments, several clients indicated during a posttreatment interview that it was motivating for them to meet with a counselor and to be accountable to someone.

During the second withdrawal phase, no clients lost a meaningful amount of weight, but three clients (Ann, Pat, and Tina) lost three or

more pounds on their own. Ken and Jan did well for the first week of the second withdrawal phase and then started to slowly gain weight until the last week in which they both showed a weight loss. Six of 11 clients lost three or more pounds during at least one of the withdrawal phases. When the first withdrawal phase is compared to the second withdrawal phase for the group, little difference exists in mean weight loss, but a larger difference was found in the variance. A greater variation appeared among the clients in the first withdrawal phase than in the second. This finding may indicate that, after more treatment sessions, weight change becomes more stable.

Several possible reasons for the ineffectiveness of the self-management procedures in previous studies were reported in Chapter 1. One important cause seemed to be the decrease in the client's motivation to change. Evidence of this factor may be found in observing the difference in weight loss between the first treatment phase and the second treatment phase. The average difference in weight loss for the 10 subjects was 6.75 pounds. Meaningful weight loss occurred during the first treatment phase ($\bar{X}$ = -7.3 pounds), and very little weight loss occurred during the second treatment phase ($\bar{X}$ = -0.55 pounds). Most of the total weight loss ($\bar{X}$ = -8.25 pounds) occurred during the first treatment phase, with eight of 12 clients losing five or more pounds.

One possible factor that may have contributed to this difference in weight loss between the first and second treatment phases is the decrease in the clients' motivation. The data collected from the post-treatment questionnaire suggest that motivation was highest during the first treatment phase (see Table 10), which may reflect the clients' enthusiasm for starting a new program and their hope that they would be

successful. Three of nine clients rated the first treatment phase as the time of highest motivation and the time they thought they would succeed. No clients rated this phase as the time of lowest motivation, and no clients thought that they would fail. During the second treatment phase, one client rated that phase as the time of highest motivation and one client as the time of lowest motivation. Also, two clients (Pat and Tina) thought that they would succeed, and two clients (Lisa and Ron) thought that they would fail during the second treatment phase. Interestingly, neither Pat nor Tina lost any weight during the second treatment phase, but they had experienced some success during the previous phases. Pat attributed her increase in motivation to the fact that she was changing other problems which clouded her chances for success. Tina stated that the increase in motivation was directly related to her acceptance of the responsibility for the weight loss. Both Pat and Tina lost weight during the next withdrawal phase. Both Lisa and Ron had experienced a weight gain during the latter part of the first withdrawal phase, which may have influenced their motivation during the second treatment phase. Even though this information was collected at the end of the study and may be unreliable, it suggests that motivation may fluctuate as a function of previous perceived successes or failures. But one can also conclude that the decrease in motivation that was reported by the clients may be a function of time. Five of nine clients rated the baseline phase as a time of highest motivation, and three clients rated the first treatment phase as the time of highest motivation. These two phases also have the highest mean motivation rating. As the clients' initial enthusiasm decreased, their motivation may also have decreased.

Another reason for the ineffectiveness of the self-management procedures is that the formal treatment may be too short or may not be complete. In this study, the experimental procedures may have had an influence on the clients' behavior during the two treatment phases. The first treatment phase may not have been long enough for the clients to incorporate the new behaviors they were learning, and/or the first withdrawal phase may have been too long for the clients to maintain their new behavior. A lack of success during the first withdrawal phase may have reinforced the clients' cognitive set to fail and, consequently, reduced their motivation. Only one client (Jan) lost more weight during the first withdrawal phase than during the first treatment phase. All of the other clients either lost considerably less weight or gained weight during the first withdrawal phase. The clients may not have been ready to try on their own for such a long period of time. Six of the 10 clients stated that the first withdrawal phase was too long, and three stated that they would have liked the first treatment phase to be longer.

The mean motivation rating (see Table 10) was the lowest during the first withdrawal phase, and four clients thought that they were most likely to fail during this phase. Four clients rated the first withdrawal phase as the time of lowest motivation. Also, eight of nine clients rated their motivation as lower during the first withdrawal phase than during the first treatment phase (see Table 11). The lack of success during the first withdrawal may have made it harder for the clients to get involved again in the second treatment phase. For those clients who did lose weight during the second treatment phase, weight loss did not occur until after the second treatment session.

If only the first treatment and first withdrawal phase are considered, the group results are very consistent with most research in this area (Hall et al., 1974; Jeffrey, 1974; Murray et al., 1975). Clients will lose weight during treatment and will maintain or slowly regain it after treatment. An average weight loss of 7.3 pounds occurred during the first treatment phase, and an almost complete stabilization occurred during the first withdrawal phase. Therefore, the first withdrawal phase, because of its length and the clients' perceived lack of success, may have undermined the benefits established during the first treatment phase and had an adverse effect on the second treatment phase.

Support for the thought that the first withdrawal phase may have had an adverse effect on the rest of the program is found in results from two weight reduction groups that were conducted by the researcher. Direct comparisons cannot be made between these groups and the 12 clients in the present study because samples were drawn from different populations. Nonetheless, the results are worthy of note. The two groups consisted of four clients each, with an average percent overweight of 52.4% and an average age of 37 years. These clients received the same treatment package but had 14 treatment sessions spaced over a 20-week period. The longest withdrawal period was two weeks. Six clients finished the study with an average weight loss of 17.5 pounds. One possible reason for their success was that the short withdrawal periods did not adversely affect their motivation.

The ineffectiveness of self-management procedures may be a result of these techniques not being potent enough to produce long-term change in the clients. Likewise, the difference in the two treatment phases

may be attributed to the potency of the material in each phase. The material in the first treatment phase may be more effective than the material in the second treatment phase. But from the posttreatment interview, eight clients indicated a strong preference for the material presented during the second treatment phase and some stated that it should be introduced earlier in the program. This preference may be a result of the clients gaining more insight into their own behavior even though they were less successful in losing weight.

Hall et al. (1974) raised the issue that the demand characteristics of the treatment phase may compel clients to implement the techniques during treatment, but with the termination of treatment, the demand to perform the techniques is removed. Therefore, clients lose weight during treatment but do not during withdrawal. The large difference in weight loss between the two treatment phases of this study does not support the notion of demand characteristics being a primary factor in the clients' behavior. It is difficult to assume that the demands of participation in the program were greater during the first treatment phase than during the second treatment phase. Hall et al. (1974) also reported that a group using a simple self-management approach was as effective in losing weight during treatment as a group using more complex self-management techniques. Therefore, other factors must be considered in order to account for the difference in the two treatment phases and the ineffectiveness of self-management procedures during withdrawal. The effectiveness of the self-management procedures may depend less on the specific treatment techniques and more on client variables.

The wide variability of client response to self-management weight

control programs which is found in this study and in other studies suggests that client variables may be highly significant factors to consider. Eight of the 12 clients in this study described themselves as being overweight since childhood. Stunkard and Mahoney (1976) state that people who develop obesity in childhood differ from people who become obese as adults. Juvenile-onset obesity tends to be more severe, more resistant to treatment, and more likely to be associated with emotional problems. A person who became overweight as a child and did not reduce his/her weight during adolescence stands little chance of becoming a normal-weight adult. Stundard and Mahoney (1976) estimate this would probably occur only once in 28 times. Therefore, the majority of clients in this study do not have a good prognosis for becoming normal weight.

Self-management programs may not work for all clients. A major task would be to determine which clients are most likely to succeed in a self-management program and which are most likely to fail. One factor to consider may be the age at which overweight becomes a problem. Adult-onset obesity may respond to one set of techniques, whereas juvenile-onset may respond to a second set of techniques. Also, emotional stability should be considered. People with emotional problems underlying and/or associated with their weight problems may have to be treated in a different manner than people who are relatively free of emotional problems.

Motivation appears to be one of the major factors relating to success. As long as clients are motivated to change, they are successful. Ron and Fran are two excellent examples of how clients are successful when motivated, but as soon as the motivation decreases, their success

at weight loss disappears. The major question is what changes one's level of motivation and how to keep motivation high over a long period of time. It would seem that success at weight loss would strengthen the person's motivation, but apparently motivation to lose weight is closely interrelated with many other factors that are operating in the person's life. For example, Ron and Fran were very successful during the first eight weeks of the program, losing 16 and 15 1/2 pounds, respectively. But at that point, their motivation changed and they began to gain weight. At present, the factors that influence motivation are poorly understood. More effort should be focused on identifying the factors that make up motivation and the factors that change it.

Several other interesting findings appear in the data. Even though the results in Table 12 are based upon self-report and were collected at the end of the study, they suggest that those clients who implement the treatment concepts are most likely to succeed, whereas those who do not are less likely to succeed. The three most successful clients (Tina, Gail, and Jan) had a mean implementation rating of 3.87, and the three least successful clients (Fran, Lisa, and Mary) had a mean implementation rating of 2.80. If these data are reliable, they suggest that the treatment techniques may be useful if they are implemented. This finding is consistent with the observations of Hall et al. (1974). The consistent, long-term implementation of treatment concepts and techniques is a major issue with self-management procedures. Also, within the concepts that were rated (question 3 on the posttreatment questionnaire, Appendix F), the three least successful clients gave a mean rating of 1 for the motivational self-statements, which meant

that they did not use them. The three most successful clients gave a mean rating of 4 for the motivational self-statements, which meant that they used this concept rather extensively (maximum score = 5). Since this one concept is the major contributor to the overall difference in implementation rating, motivational self-statements may be a major factor that contributed to their success.

Increasing exercise is another area with which most clients had difficulty. Some theories of obesity suggest that physical inactivity is a major cause (Stunkard & Mahoney, 1976). Little research is reported in the weight control literature that considers why people have difficulty in increasing their exercise. One major factor may be embarrassment. Most overweight people have more difficulty with sports, and several clients stated they wished to lose weight in order to be better at sports. This is an area that deserves further attention in weight control programs.

Seven of 12 clients gained five or more pounds during the six-week baseline phase. This phase coincided with the Christmas holidays and the first week of the winter term. During the posttreatment interview these clients were asked if the knowledge that they were going to start a weight control program contributed to their weight gain. Only one client (Tina) indicated that it did. All of the other clients stated that it was normal for them to gain weight over the holidays. Without a control group it is impossible to determine if this weight gain during the baseline phase had any effect on the subsequent treatment.

Two clients terminated the program before the end of the second treatment phase. Beth terminated at the end of the first treatment phase, and Ann dropped out following the second session of the second

treatment phase. An attrition rate of 17% is normal for weight control programs. It is the impression of the researcher that the attrition rate might have been higher if the clients had met in groups. During the posttreatment interview, all but two clients strongly favored meeting individually with a counselor, as opposed to meeting in a small group of four or five. The other two saw advantages in both individual counseling sessions and group methods. The individual counseling sessions allowed clients to gain some benefit in related areas, as well as weight control. Often, other problem areas are associated directly or indirectly with the clients' weight problems. This was especially true of Lisa, Mary, and Pat.

Limitations

The nature of self-management studies places limitations on the conclusions that can be drawn from them. Since the treatment techniques are implemented by the clients in their own environment, the validity of the self-report data can be questioned. When the clients state that they maintained their diet throughout the week, the only confirmation is their weight loss, which is very indirect. Also, the validity of the self-report data in the posttreatment questionnaire could be questioned. Was the level of motivation during the various phases of the study the same as the level reported at the end of the study?

The population from which the clients were obtained is limiting. The clients in this study were all college-age individuals attending a large state university. The clients either responded to an advertisement or were referred by the consulting physician. Consequently, the clients in this study may differ in certain respects from people in the

general population who are overweight. The results and conclusions of this study can be generalized to the extent that these clients resemble other people who are overweight.

The intensive case study design allows generalization of treatment effects through replication across subjects. The extent to which the treatment package was uniformly implemented across clients by the counselors can be questioned. Differences in clients and differences in the abilities of the counselors may create variation in the implementation of the treatment package. This variation in implementation may limit the conclusions concerning the treatment package.

The proposed client variables were derived from the observations of the researcher and represent his opinions concerning the factors influencing the clients' success or failure in this study. Since little research has been performed in this area, these client variables are intended to be viewed as observations that might be helpful in planning future research efforts.

Proposed Client Variables

From observing the 12 clients over a 20-week period in their attempt to implement the treatment package and lose weight, it is the opinion of the researcher that several variables were important in the success or failure of these clients. The client variables can be classified according to the following categories: (a) motivation, (b) emotional stability, (c) reasons for wanting to lose weight, (d) cognitive set to fail, (e) understanding and implementing the treatment concepts, and (f) personal organization and record-keeping. These six categories are somewhat interwoven.

Motivation. It is of no surprise that the motivation of clients is a key variable in weight loss. Motivation to change is considered very important in any type of self-management program. The important aspect of motivation is the specific factors that contribute to it and maintain it over a long period of time.

A major factor influencing motivation to change is the payoffs the clients receive for both being overweight and for losing weight. It could be assumed that people receive positive consequences for being overweight, as well as negative consequences. The positive consequences could be small and immediate, such as the taste of good food, or they could be large and important, such as serving major personality functions. Ken had a large part of his identity associated with being overweight, and Lisa used her weight problem to influence her father. Also, there are both perceived positive and negative consequences for losing weight. If the perceived positive effects of losing weight are not much greater than the positive consequences of being overweight, then peoples' motivation to change will be low. Likewise, if the negative effects of being overweight are not much greater than the negative consequences of losing weight, motivation will be low. Therefore, it is necessary to find out what the real payoffs are for the client in order to assess the level of motivation. If people are getting a large payoff for being overweight, then this problem would have to be resolved before the person could be successful in losing weight.

Keeping motivation to change high over a long period of time is another problem area. Decreases in motivation occurred in several clients. One factor that might contribute to maintaining motivation is the view that weight loss is a selfish activity. The primary reward

for weight loss should be intrinsic. If the primary reward for weight loss is extrinsic, such as pleasing one's spouse, getting more dates, buying new clothes, or being better at sports, the amount of motivation to change will depend upon the power of the outside agents. For example, if clients want to lose weight for a specific occasion such as graduation or job interviews (extrinsic), the motivation to change will greatly decrease as soon as the special occasion passes. Also, if the special occasion is not immediate or the goal will not be reached, the motivation to change will decrease. With many extrinsic rewards, clients fear that if the weight is lost, the extrinsic reward will not be more available (e.g., more dates). If the primary reward for weight loss is intrinsic, such as better health, then there is a better chance of sustaining the motivation to change over a longer period of time and a greater chance to achieve permanent weight reduction. Environmental factors will have a smaller effect on one's motivation.

Another factor related to keeping motivation to change high over a long period of time is that the client must find satisfaction from performing the activities and achieving the goals that lead to weight loss, as well as satisfaction from the weight loss itself. If people only gain satisfaction from the weight loss itself, then motivation will greatly decrease when a plateau is reached. The motivation of many clients is strongly influenced by what the scales read every week. The slow rate of weight loss and its delayed positive consequences can greatly affect motivation through discouragement if the primary reward is weight loss itself.

Characteristics of individuals with high need-achievement motivation are that they set challenging personal goals that are moderately

high and receive satisfaction when those goals are attained. It could be that the level of need-achievement motivation may be a factor in the success of self-management weight control programs. Those clients with high need-achievement motivation may be able to persist at the weight loss activities longer than a person with low need-achievement motivation.

Emotional stability. If people are experiencing many other problems at the time of a weight loss program, their attempts to lose weight will probably be disrupted by these problems. Two areas associated with emotional stability appear to be important to weight loss. First, clients must care about themselves. If clients do not care about themselves, as was the case with Mary, then they will do little to attain their goal of losing weight. Often people who do not care about themselves will express their dislike through overeating. This idea is closely associated with viewing weight loss as a selfish activity. If a person does not like him/herself, then he/she will do little to improve.

Second, clients must be able to tolerate frustration in order to lose weight. Frustration can come from several sources. In order to lose weight, people must experience some hunger. If people view the state of hunger as very unpleasant and cannot tolerate this form of frustration, then their chances of permanent weight loss are probably low. Frustration can come from feelings of being deprived. People in the client's environment may eat a lot of food while he/she can only have a small amount, and this is a punishing experience. Social situations can be a source of frustration. Friends may exert pressure to

drink or eat certain high-calorie foods. Also, frustration can arise from attempting to learn new ways to handle problem feelings like depression and boredom. Some people have learned to handle these feelings by eating, and the process of learning new ways can be difficult.

Reasons for wanting to lose weight. Often, the stated reasons for wanting to lose weight are very general and vague. These reasons may include better health, better appearance, and more self-confidence. Sometimes clients have accepted these reasons because they are very common and socially acceptable. When asked to elaborate upon the value they personally assign to better health, appearance, or self-confidence, they have difficulty. The reasons for wanting to lose weight need to be very concrete, immediate, and emotionally meaningful to the client. Without such reasons, it is difficult for the client to counteract the powerful, immediate reinforcing effect of food.

Some people feel that they should lose weight, but it is something they really do not want to do. Because of this "should," people will feel guilty if they are not trying to lose weight. Actual weight loss is not important, but the act of trying to lose weight is important. Consequently, there are numerous people who are always on a diet but never lose any weight. Beth and Pat seem to have this "should" operating in them.

In order to be successful, clients must fully understand their reasons for wanting to lose weight and then decide if those reasons are strong enough for them to perform the necessary activities that will lead to weight loss. With vague, unclear reasons, it is

difficult to change a strong behavior like eating habits.

Cognitive set to fail. Most people who have tried many times to lose weight and who have not been successful will enter a weight control program with a cognitive set toward failure. Most people are looking for a guaranteed, easy method to lose weight and will try any method that comes along. Many people have the attitude that they will try a program or diet and hope that it works, even though they have their doubts.

Permanent weight control requires much effort and hard work over an extended period of time. When the weight control program becomes hard work, the attitude of failure is an excuse for not trying and giving up. It becomes a self-fulfilling prophecy. This attitude was displayed by several clients in this program. It must be confronted if the clients are going to be successful on their own over an extended period of time.

Understanding and implementing the treatment concepts. If healthy people implement the concepts of the treatment package, they will lose weight. The problem becomes one of implementation over an extended period of time.

Understanding and acceptance of two concepts seem crucial for the long-term success of the client. First, clients must accept the full responsibility for controlling their own eating behavior. If clients place the control for their eating behavior in some agent outside of themselves (e.g., spouse or counselor), their success will probably be short-term. This was clearly evident in the case of Fran.

Second, clients must understand and accept that they have a choice of when, what, and how much they eat. If they do not accept this

choice, then they will always have an excuse for not performing the necessary activities. If clients do accept this choice, then they can allow many factors to enter their decision-making process and will be more likely to make choices that will lead to weight loss. Also, by accepting this choice over their eating behavior, guilt feelings for breaking the diet can be reduced. Many people have guilt feelings when they break their diet, and these guilt feelings often lead to greater frustration and low self-concept, which may make it even harder to continue a weight control program. But if people consciously choose to go off the diet and are willing to accept the consequences, then they tend not feel guilty about their behavior. People can intellectually accept the idea of choice in their eating behavior very quickly, but it takes more time for them to learn how to exercise that choice on a behavioral level. Jan and Tina were starting to exercise that choice in their behavior.

Personal organization and record-keeping. In order to implement a weight control program, people must be able to plan ahead and organize their time. In order to keep deprivation states manageable, people should eat three meals a day which include the proper food. The person who cannot plan ahead, schedule meals, and have the proper food available will have more difficulty in handling these deprivation states. If people do not organize their time, they will have difficulty maintaining a regular exercise program. If clients' lives are very disorganized, it may be helpful to spend time developing some organization.

Accurate record-keeping is very important. Often, as soon as the record-keeping decreases, so does the weight loss. Without accurate

records, people may think they are maintaining the diet when, in reality, they have slowly increased their calorie intake.

Implications

Treatment of obesity. Weight problems have multiple origins, and within the individual they may be highly complex in their development and maintenance (M. J. Mahoney & K. Mahoney, 1976b; Stunkard & Mahoney, 1976). Unfortunately, all of the causes of obesity are poorly understood. Human weight problems range from those having simple, easy-to-manage causes to those with highly complex, difficult-to-manage causes. Most people's weight problems probably result from a combination of problems that are unique to the individual.

The causes of obesity might be placed on a continuum ranging from simple reasons, such as poor diet, to complex reasons, such as overweight serving important personality functions for the person. Within the extremes of the continuum could be such factors as lack of exercise, lack of nutritional knowledge, poor eating habits, craving for sweets, boredom, nervous tension, and biological factors. Any individual could have a combination of reasons, and it could be assumed that the more factors involved and the more complex those factors, the more difficult it will be to treat the problem. Likewise, the methods of treatment should be dictated by the nature of the causes. Therefore, it seems very unlikely that one treatment package will be useful for everyone. This hypothesis may account for the wide variability in client response which is typically found in weight control programs. Treatment packages should be highly flexible so that, after determining the cause of the overweight problem, they can be individualized. Some people may need

extensive diet information; others may need a structured exercise program; still others may need help with problem feelings and alternative ways to reinforce themselves. Some people may respond best in an individual setting, others in a group setting, and some in a combination of both.

How does one determine the cause of people's weight problems in order to individualize the treatment program? If there is no biological or genetic component to an individual's weight problem, then it can be assumed that the person's overweight is an acquired condition and that the person is receiving some payoff (reward) for his/her behavior. The overweight person is consuming more calories than he/she is expending. Therefore, since the individual's body does not need the extra food, the person must be receiving something positive for his/her eating behavior. The first step in a treatment program might be a thorough assessment of what the payoffs are for an individual. This may take considerable time and may be an ongoing consideration throughout a program, since people typically are not aware of their payoffs until they start to give them up. For example, one client mentioned that she did not realize how she had used food to cover up her feelings of rejection until she stopped her between-meal snacking. A lot of feelings surfaced which she did not realize were there. Obviously, the payoff was that food and eating helped cover up her negative feelings.

A thorough assessment of peoples' reasons for wanting to lose weight is essential. Many people have very vague reasons that do not have much real meaning to them. The person's reasons for wanting to lose weight will have to be stronger than the payoffs received for being overweight in order for him/her to be successful. After a

complete analysis of a person's reasons for wanting to lose weight, he/she may decide that it is not worth attempting to lose weight at this time.

A thorough assessment should also be made of people's attitudes toward weight control in general, dieting, exercise, basic food groups, the feeling of hunger, their own self-control, past failures, expectation of success, their self-concept, caring about themselves, self-improvement, and the role of food in their lives. Also, peoples' knowledge of various areas such as nutrition, the role of exercise in weight control, factors that influence eating behavior, and the handling of problem feelings should be assessed. Any myths that people maintain about weight control and dieting should be located and discussed. Information in areas such as those listed above may make it easier to personalize treatment programs and may increase the likelihood of success.

One reason for lack of success in permanent weight control may be that treatment programs ask people to give up their immediate payoffs for overeating in return for the promise of vague, future benefits. Instead, people need to handle the payoffs they are getting from overeating in a different, less self-destructive way. If the payoff is the immediate pleasure of the taste of the food, then the person must be helped to find other immediate pleasures that can be a substitute for food. If the payoff for eating is the temporary removal of problem feelings, then the client must be helped to find alternative ways of handling those feelings. If the payoff is an avoidance of close interpersonal relationships or a fear of failure, the the client must be helped in those areas. Asking the client to give up the payoffs with

nothing in return except some vague, future benefit will probably result in efforts which last for only a short period of time. Permanent weight control programs should deal with the alteration of benefits so that the weight problem can be handled on a continuing basis, rather than imposing temporary demands. Unfortunately, most at present do not.

In order to increase the likelihood of long-term success, it seems that certain attitude changes must also occur. The most important attitude change may be the confidence that one can control his/her eating behavior and the acceptance of the idea of choice in his/her eating behavior. Also, peoples' attitude toward the role that food plays in their lives often needs to be changed. For example, the role that food and drink play in social situations often needs to be changed. In the area of attitude change, the cognitive model of self-management can exert a strong influence. A major part of any attitude is the person's belief system, which involves self-statements. More work should be done to determine the role of attitudes on peoples' eating behavior and on their ability to lose weight. Most people have an attitude that a special diet is the factor that causes them to lose weight. Instead, their attitude should be redirected toward the idea of permanently changing eating habits in order to effect a loss in weight.

Treatment package. In the posttreatment questionnaire and interview, every client, even the unsuccessful ones, had very favorable comments about the treatment package. The most typical comments were that it was a very practical and realistic approach and it allowed them to gain a better understanding of their own behavior. Almost all of the clients stated that they liked the concepts in the second

treatment phase and found them most beneficial. The second treatment phase emphasized the cognitive aspects, and these may be the most beneficial over the long-term. The researcher thinks that the cognitive components of the treatment package have the potential of being the most helpful to clients. This position coincides with M. J. Mahoney and K. Mahoney's (1976b) observations from their recent studies. But it seems that much more time should be given to these concepts if they are going to have their maximum benefit. The clients who were not very successful did not blame the treatment methods, but rather accepted the responsibility themselves. How much of the favorable comments were a result of the clients' investing 20 weeks of their time in the program and the demand characteristics of the interview is impossible to assess.

For most clients, 10 treatment sessions are not enough, especially when major payoffs are being obtained for their overweight. Ken was a good example of a client needing many more treatment sessions. If he had had more sessions, he might have had a better chance of succeeding. It takes time for a client to fully understand his/her own self-defeating behavior and how he/she implements it. For example, most clients immediately state that they have no fears associated with losing weight, but after a period of time and thought they realize that their fears have been suppressed. Both the concept of eating as a choice and the technique of self-instruction required more treatment time than was given in this study. It takes time for clients to learn how to exercise choice in their eating behavior and to talk positively to themselves. It is the opinion of the researcher that most clients would require a minimum of 20 treatment sessions, with some clients requiring more. In Stuart's (1967) original study, the number of sessions ranged from 16

to 41. Old eating habits have been present for years and learning new eating habits takes time and considerable effort. Also, the concepts in the second treatment phase should be introduced earlier so that they can be referred to throughout the treatment.

More time should be spent on assessing the clients' motivation and reasons for wanting to lose weight. If these issues are clarified early in the treatment, possibly before the dieting begins, clients will be in a better position to assess what kind of commitment they are willing to make to the program. By comparing benefits of losing weight with the sacrifices made while engaging in weight loss activities, clients can make a more conscious commitment to what they want to do. Some means should be developed of assessing the clients' attitudes toward weight control, dieting, exercise, self-control, failure, self-reinforcement, basic food groups and frustration, as well as an assessing of the payoffs that clients receive for being overweight and for losing weight. Value clarification exercises might be useful for this purpose.

A classification system for the cause of overweight should be developed. This classification system may help in personalizing the treatment methods in terms of techniques used and time required.

Because of the overwhelming preference by these clients for individual counseling as opposed to group counseling, an effort should be made to assess whether a particular client would do better in individual counseling or group counseling. Both individual and group sessions have advantages as well as disadvantages. Individual sessions offer a more flexible personalization of the treatment strategies and allow a more intensive effort with the client's problems. The group approach

may add incentives and group pressure and allow the clients to gain insights and ideas from other members of the group. A combination of individual and group methods is possible and perhaps desirable, especially since group methods are more economically feasible. Some parts of the treatment program may be more effective if introduced and learned on an individual basis, while other parts may be effectively acquired in group sessions.

Most of the clients stated that they liked the idea of a withdrawal phase where they could attempt the weight loss strategy on their own and then return to see a counselor and discuss what happened. The withdrawal of treatment seems to be a good idea, but it might be more effective if the meetings with the counselor were faded out gradually. Possibly, failures could be caught early and averted through this process of gradual withdrawal. Also, before clients are sent on their own, a criterion of consistency should be attained. For example, clients could be required to maintain the diet for three consecutive weeks before being allowed to go a week on their own. In some cases it may be necessary to meet with a client more than once per week in order for the client to learn how to maintain a diet for a full week. This would have been appropriate for Ken. He maintained his diet on the days closest to meeting the counselor. On the days furthest from his meeting with the counselor, he would not maintain the diet. Frequent meetings early in the program, with a gradual decrease in meetings, might be beneficial in such cases.

More time should have been spent on developing alternative behaviors to eating in problem situations. For example, some people reward themselves primarily through eating and have learned very few

alternative ways of self-reward. One client stated that when she reached her goal in a previous program at Weight Watchers, she went home and ate everything in the house as a reward. In other situations when she did well, she would reward herself through eating, which is very self-defeating. Another client stated that when she felt depressed she would eat, and the food would make her feel better.

Assertive training could be included in a treatment package. Many people have trouble saying "no" when they are offered food in social situations. Clients should have the right to refuse someone's food without feeling guilty. Many people are "food pushers," and the overweight person should learn how to deal with those situations.

Suggestions for Future Research

The results of research in the area of self-management weight control programs suggest a great need for well-designed studies in this area. The programs themselves are far from being refined, let alone researched. Much of the preceding sections has indicated directions for future research. Several specific areas will be identified that seem to be particularly promising areas for future research.

The greatest need is in the development of instruments that could measure client variables and assess the relevant attitudes. Also, instruments that will assess the payoffs clients are receiving from their overweight and the reasons for wanting to lose weight (motivation) need to be developed. With reliable measuring instruments, a classification system could be developed which might aid in the individualization of treatment methods. With reliable measuring instruments, it may be possible to isolate predictor variables which

would indicate which clients are more likely to profit from a self-management weight control program and which clients are not. This might help in determining a "readiness" concept for people who want to lose weight. Some people may be more ready to perform the necessary activities in order to lose weight than other people.

A second research area involves the components of the treatment package and its implementation. Further research should be performed in order to isolate the most effective and the least effective components of the treatment package. Efficacy of the operant components and the cognitive components should be explored. Data in this study suggest that the cognitive components (motivational self-statements) may have been a crucial variable in the success of these clients. But this hypothesis should be empirically investigated. Also, some components of a treatment package may be more effective with some clients, and other components may be more effective with other clients. The cause of the overweight problem may relate to which components of a treatment package will be most effective for each client. Some clients may find some components of a treatment package easier to implement than other components. This possibility should be explored.

Another area that needs further research is the role of the counselor. Hundreds of how-to-lose-weight books and articles appear every year in the mass media. The implication of these books and articles is that people can lose weight on their own and stay thin forever if they follow the few simple suggestions. Each article or book has its own newly discovered secret. However, results are generally disappointing. Another source of disappointing results is the many doctors who will recommend that their patients lose weight, give them a diet or some

form of medication, and then send them out on their own to accomplish this task. It is the researcher's opinion that, in most cases, clients cannot be successful unless they have a professional helper to assist them in learning habits and new ways to cope with problem areas. This is especially true for clients who have complex reasons for their overweight. Unless clients have an accurate understanding of the factors that influence their eating behavior and have mastered some techniques to change their eating habits, their chances of long-term success are probably minimal. However, this is a researchable question. Can clients who have access to the same information be as successful as those who have the information plus discussions with a counselor?

Closely related to the role of a counselor in weight reduction efforts is the effectiveness of the treatment packages being implemented in a group situation or on an individual basis, or with a combination of both group and individual sessions. Many treatment packages are introduced in group settings, but the preference for individual counseling from the clients in this study suggests that this is an area that deserves some attention. Groups are much more economical, but if individual treatment is more effective, the cost effectiveness of this treatment may be less expensive in the long term. A combination of group and individual sessions may be the most economical and effective.

The idea of developing a criterion of consistency in performing weight loss activities is another area for research. Clients must meet that criterion before they are allowed to attempt weight loss on their own for a period of time. The number of counseling sessions would vary from client to client, and if clients could not meet the criterion

of consistency, then a reevaluation of their reasons for wanting to lose weight and the payoffs they were receiving from their overweight would be necessary. Clients who cannot maintain a diet and exercise program and maintain other activities that are related to weight loss may need other kinds of help before they enter a weight control program. The researchable question is whether a set number of treatment sessions before clients attempt to lose weight on their own is more effective than the clients' fulfilling a criterion of consistency, regardless of the number of treatment sessions.

In Retrospect

From experiences gained through conducting this study, the researcher has identified several changes that are recommended for subsequent efforts. Each will be briefly described.

1. A more extensive pretreatment questionnaire could be used in order to collect more detailed background information concerning each client's weight problem. A questionnaire similar to the one used at Stanford University could be developed (Agras, Ferguson, Greaves, Qualls, Rand, Ruby, Stunkard, Taylor, Werne, & Wright, 1976).

2. The clients' reasons for wanting to lose weight could have been assessed more thoroughly. A simple profile form could be developed which would list the clients' reasons for wanting to lose weight, and each reason could be rated for its strength. This form could be matched with a similar form which listed the payoffs for being overweight and their strengths.

3. The number of treatment sessions could have been increased, with a decrease in the length of the first withdrawal phase. For

example, the first treatment phase could have been seven weeks and the first withdrawal phase three weeks.

4. The concept of eating as an act of choice, and the technique of self-instruction could be introduced earlier in the treatment process. These concepts seemed to be effective in allowing clients to gain some understanding concerning their eating behavior, but more time is needed for them to be implemented more completely. By expanding the first treatment phase, these concepts could easily be introduced then.

5. A method should be developed to make clients more accountable for reporting their activities. A checklist form was utilized, but several clients did not use it or were not willing to complete it every day. A few clients stated that the checklist form became a chore to fill in.

6. A simple instrument could be developed that would assess the clients' motivation at various times during the day. This may be a more reliable procedure than asking the clients at the end of the study to rate their motivation during the different phases.

APPENDICES

APPENDIX A

Counselor Training Rating Forms

APPENDIX A

WEIGHT REDUCTION PROGRAM

TRAINING SESSIONS
(1st Treatment Phase)

Counselor Self-Rating

Name: _____

According to the scale below, rate how well you understand the following concepts.

Do Not Understand		Slight		Moderate		Very		Extremely Well
1	2	3	4	5	6	7	8	9	10

1. The concept of self-management: ___
2. The conceptual model of eating behavior: ___
3. The purpose of the daily eating records: ___
4. Using the diet plan: ___
5. Setting weekly and phase goals: ___
6. Situational strategies: ___
7. Purpose of the exercise program: ___
8. Developing motivational self-statements: ___
9. The conceptual model of self-verbalization: ___
10. Attaching self-statements to recurring cues: ___
11. Developing alternative responses to problem situations: ___

WEIGHT REDUCTION PROGRAM

TRAINING SESSIONS
(2nd Treatment Phase)

Counselor Self-Rating

Name: _____

According to the scale below, rate how well you understand the following concepts.

Do Not Understand		Slight		Moderate		Very		Extremely Well
1	2	3	4	5	6	7	8	9	10

1. The A-B-C model of behavior: ___
2. The role of self-statements in the A-B-C model: ___
3. Eating as an act of choice concept: ___
4. The necessity of having the client accept the A-B-C model: ___
5. Factors that lead to SDB - Fear: ___
   Techniques: ___
   Disowning: ___
   Prices: ___
6. Factors that lead to GAS: ___
7. Purpose of the SDB worksheet: ___
8. The purpose of the self-instruction package: ___
9. The three components of the self-instruction package: ___
10. The purpose of rehearsal of the self-instruction package: ___

APPENDIX B

Baseline and First Treatment Phase Forms

APPENDIX B

WEIGHT REDUCTION PROGRAM

Information Sheet

Date:

Name:

Address:

Phone Number:

When is the best time to be reached?

Age: Sex:

Present weight: Height:

Total pounds you want to lose?

Which evenings are you free during the Winter Quarter?

Do you have any present health problems?

If yes, please explain:

Are you presently involved in a weight control program?

If yes, please explain:

Research Consent Form

1. I have freely consented to take part in a scientific study being conducted by Randy Gold under the supervision of Dr. Norman R. Stewart, Professor of Education.

2. The study has been explained to me and I understand the explanation that has been given and what my participation will involve.

3. I understand that I am free to discontinue my participation in the study at any time without penalty.

4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. Within these restrictions, results of the study will be made available to me at my request.

5. I understand that my participation in the study does not guarantee any beneficial results to me.

6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed: _____

Date: _____

Audiotape Release Form

I, _____, hereby agree to permit audiotape recordings of the counseling interviews in which I appear. I understand that the confidentiality of the material presented will be protected. I likewise authorize the researcher to use such materials for instructional purposes with professional groups so long as they also agree to protecting the confidentiality of the material. The materials recorded will be stored and protected as confidential material by the researcher. The specific method for maintaining confidentiality and storage is determined by the professional supervisor and the researcher. When the materials are no longer useful for research or

instructional purposes, or at my written request, they will be withdrawn from use, mechanically erased, or destroyed.

Signed: _____

Date: _____

Witness: _____

WEIGHT REDUCTION PROGRAM

Medical Clearance

_____ has been examined and no gross endocrine problems or gross illnesses which may be complicated by dieting were found. The above named person may participate in the self-management weight reduction program conducted by Randy Gold.

_____

Dr. Mary H. Ryan

Date: _____

WEIGHT REDUCTION PROGRAM

Questionnaire

Name: _____ Age: ___ Marital Status: _____

1. What is your present weight? _____ Height? _____

2. What is your goal weight? _____

   Total pounds you want to lose? _____

3. List your reasons for wanting to lose weight. Be as specific as possible and include as many as possible.

4. How long have you wanted to lose weight?

5. Have you attempted to lose weight in the past?
   If yes, how many times? _____

   What have you tried (e.g., special diets, weight watchers, exercise, etc.)? Be specific.

   When was the last time you tried?

6. Is there anyone in your social environment who would be willing to help you with your weight control program?
   If yes, who?

7. How much money would you be willing to bet that you will achieve your goal?

   $10 $25 $50 $75 $100

8. How unpleasant is your weight problem to you?

slight		moderate		very
1	2	3	4	5

9. How important is it that you lose weight?

slight		moderate		very
1	2	3	4	5

10. List as many positive consequences as possible that will result if you lose weight.

11. List any negative consequences that will result if you lose weight.

12. How much effort do you feel will be required in order to lose weight?

slight		moderate		very
1	2	3	4	5

13. What are your expectations that:
a) you will be able to implement the weight reduction program?

low		medium		high
1	2	3	4	5

b) you will be able to continue with the program after the treatment phase is over?

low		medium		high
1	2	3	4	5

14. Write a brief history of your weight problems. Please include such things as approximate length of time you have been overweight, the possible reasons for weight problems, and any other relevant information (use back of page or other paper).

WEIGHT REDUCTION PROGRAM

Baseline Weight Record

December 14th to January 10th

It is important to have an extended record of your weight in order to determine normal fluctuations over time. Please record your weight at approximately the same time on each of the following days:

Mon. Dec. 15 _____

Wed. Dec. 17 _____

Fri. Dec. 19 _____

Mon. Dec. 22 _____

Wed. Dec. 24 _____

Fri. Dec. 26 _____

Mon. Dec. 29 _____

Wed. Dec. 31 _____

Fri. Jan. 2 _____

Mon. Jan. 5 _____

Wed. Jan. 7 _____

Fri. Jan. 9 _____

Name: _____

WEIGHT REDUCTION PROGRAM

Daily Eating Form

Date _____

Weight _____

Food Eaten		Time	Social		Where Eaten	Mood When Eaten	
Quantity	Type of Food	Circle time if food was part of meal	Alone?	With whom?	Home Work Restaurant School	A-Anxious B-Bored D-Depressed E-Angry	H-Happy T-Tired

Record the length of time required to eat the largest meal. _____

WEIGHT REDUCTION PROGRAM

Daily Eating Record Summary Form

Name: _____

Date: _____

1. List the problem foods:

2. List the problem situations:

3. List the problem times:

4. List the problem feelings:

5. How fast do you eat?

6. Under what conditions are you most likely to overeat or go beyond your diet?

7. What do you find enjoyable concerning your eating behavior (flavor, social aspects, etc.)?

WEIGHT REDUCTION PROGRAM

Hunger Rating

Name: _____

According to the scale below, please rate the intensity of your hunger feelings for each day. Also, indicate when during the day you felt the most hunger.

No Hunger		Slight		Moderate		Very			Extreme Hunger
1	2	3	4	5	6	7	8	9	10

Date		Time	
_____	Sun.	_____	_____
_____	Mon.	_____	_____
_____	Tues.	_____	_____
_____	Wed.	_____	_____
_____	Thurs.	_____	_____
_____	Fri.	_____	_____
_____	Sat.	_____	_____

Comments:

WEIGHT REDUCTION PROGRAM

Checklist

Name: _____

Put a check (✓) in the appropriate space each day that you successfully carry out the assigned task.

Date		Diet	Exercise						
_____	Sun.	____	____	____	____	____	____	____	
_____	Mon.	____	____	____	____	____	____	____	
_____	Tues.	____	____	____	____	____	____	____	
_____	Wed.	____	____	____	____	____	____	____	
_____	Thurs.	____	____	____	____	____	____	____	
_____	Fri.	____	____	____	____	____	____	____	
_____	Sat.	____	____	____	____	____	____	____	

Date		Diet	Exercise						
_____	Sun.	____	____	____	____	____	____	____	
_____	Mon.	____	____	____	____	____	____	____	
_____	Tues.	____	____	____	____	____	____	____	
_____	Wed.	____	____	____	____	____	____	____	
_____	Thurs.	____	____	____	____	____	____	____	
_____	Fri.	____	____	____	____	____	____	____	
_____	Sat.	____	____	____	____	____	____	____	

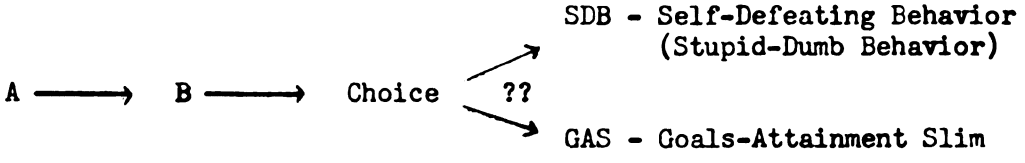
APPENDIX C

Handouts for Clients during Second Treatment Phase

APPENDIX C

WEIGHT REDUCTION PROGRAM

Eating is an Act of Choice



A - refers to any agent, activity, or action (problem food, situation, feeling; weight control in general; diets; exercise; etc.)

B - refers to your belief system about "A" which is symbolized by self-statements

SDB - refers to anything that does not lead to weight loss (going off diet, not exercising, etc.)

GAS - refers to performing the activities that lead to weight loss

You always have a choice in your eating behavior. What and how much you put into your mouth is clearly a choice on your part.

Factors that lead to self-defeating choices

1. Fear - Some people have fears as to what they will find out about themselves if they lose weight. For example:

a) If I really commit myself and fail, I will have to accept the fact that:
   (1) I have no inner control.
   (2) I will not be up to the task of coping with life.
   (3) I will look foolish.
   (4) People will ridicule me.
   (5) I am not a very good person.
   (6) I am a lazy person.

b) What if I lose weight and I am still not as popular or attractive as I would like? I do not want to take the risk.

c) It is more risky to lose weight than to be overweight because people will expect more of me (interpersonally, sexually, etc.).
d) If things do not turn out right, I can always blame it on my weight problem.

2. Techniques - People use many means that allow them to choose the self-defeating behavior. They use self-statements that make it easier to choose self-defeating behavior.

a) Lying to yourself.
"I need a candy bar for energy."
"A little bit won't hurt. I will subtract it later."
"I can't figure the calories of this food; therefore, it will not matter that much."
b) Dwelling on a negative idea.
"I am hungry; it is awful to feel hungry."
"I am really being cheated by being on a diet since others can eat that food."
"It's hopeless; I can't overcome it."
"I have so far to go; I wonder if I will ever get there."
c) Setting unrealistic goals that cannot possibly be obtained and then using nonattainment as an excuse to abandon the weight control program.
"I did not lose 5 pounds this week, so why bother."
d) To label yourself as fat and feeling that nothing can be done.
"I can't do this."
"Eating behavior can't be changed."
e) Keeping the weight problem as a means to get down on yourself.
"I do not have the control I should have."
"Why can't I be like normal people."
f) To give food the power over you.
"I can't control my impulses."
"I just automatically eat that cake."
g) Hoping for success but not expecting it.
"I will try it but I don't think it will work."
h) Separating eating behavior from the rest of your behavior.
i) Keep reminding yourself of previous failures on diets.
"I have failed many times before and I will fail again."
j) Selectively forgetting to do the activities that should be done.
k) Putting the responsibility of losing weight totally on the shoulders of the diet, counselor, spouse, etc.
"You tell me what to do, and if it fails it is your fault."
l) To pick friends or spouse who will reinforce the self-defeating behavior.

3. Disowning - Disowning means that we shift the responsibility for our behaviors to something outside of ourselves. There are several ways to disown.

a) Blaming - we blame others, past, parents, human nature or almost anything. When we blame, we are deceiving ourselves.

We blame eating on: certain foods; habit; pressure from others, job, tests, etc.; automatic reflex; relapses; and others can have it.
"I am inclined this way."
"Nobody cares, so why should I."
"It's my nature."
"I am a sensitive person, I don't want to hurt others by not eating their food."
"I get relapses."
"Something won't let me change."
"I just can't help it."

b) Disowning and helplessness go hand-in-hand. The more we disown, the more helpless we are to do anything about changing our eating behavior. If we would not disown, then we would be forced to stand on the fact that our eating behavior is clearly a choice. We can consciously choose to do the activities that will lead to weight loss or consciously choose not to do them. If we are consciously aware of our choice, we can weigh the consequences of our actions and allow them to enter the decision-making process.

4. Prices - There are consequences or prices we way for choosing our self-defeating behavior.

a) Actual results: inability to be fully happy with self; impaired relationships; poor health and early death; unnecessary expenditure of money; reduction of energy and spontaneity; loss of self-respect; discouragement; bitterness; guilt feelings; and real rejection.
b) Things missed because of SDB: an ability to accept self and be happy with that self; more energy to do important things; a sense of freedom; and more peace within.
c) We will often minimize the consequences or prices we pay for SDB by: joking about them; making them seem less severe; perceiving them to be beneficial; becoming numb and somewhat accustomed to them; comparing our prices to others and coming off best; building a way of life around them; blaming others for the behavior; and dismissing honest feedback concerning the nature of the prices.

Factors that lead to goals-attainment choices

It helps us to make goals-attainment choices if we truly accept and become aware of the following:

a) we have a conflict between wanting to lose weight and keeping our old eating behavior.
b) we must see ourself as a chooser.
c) we must work hard at finding out how we implement our self-defeating behavior and stop doing it.
d) we must practice goals-attainment choices as often as possible (staying on the diet, etc.); the more we practice the easier it becomes.

e) we must plan ahead for situations in which we are most likely to use SDB and monitor ourselves in those situations.
f) we must catch ourselves putting the SDB patterns into gear and stop and make the alternative decision.
g) we must try to lessen the time between making a choice and becoming aware of that choice.

WEIGHT REDUCTION PROGRAM

Self-Defeating Behavior Worksheet

Please complete the following and bring it back next week (use the back for more space).

1. What I fear might happen (find out about myself) if I do not use my self-defeating behavior (if I lose a significant amount of weight).
   a)
   b)
   c)
   d)
   e)

2. The techniques I use (might use in the future or have used in the past) to defeat a weight control program.
   a)
   b)
   c)
   d)
   e)

3. I disown what I do in order to keep my self-defeating behavior by:
   a)
   b)
   c)
   d)
   e)

4. The prices I pay for not losing weight are:
   a)
   b)
   c)
   d)
   e)

   The ways I minimize the prices are:
   a)
   b)
   c)
   d)
   e)

5. The benefits I would have, if I chose goals-attainment slim behavior, are:
   a)
   b)
   c)
   d)
   e)

WEIGHT REDUCTION PROGRAM

Ways to Defeat a Weight Reduction Program

Although people willingly volunteer and state that they want to lose weight, often many individuals will try to defeat the program in an attempt to keep their self-defeating behavior (old eating habits). By becoming aware of the methods you might try to use to defeat a weight control program, it will help you be less self-defeating.

Below is a partial list of methods people use to defeat weight control programs:

1. To withhold important data from the counselor.
2. To put the responsibility for losing weight entirely on the diet, program and/or counselor.
3. To be noncommittal to the weight reduction program.
4. To take a passive, wait-and-see-what-happens attitude.
5. Not to fulfill the assignments given such as record-keeping.
6. To be inattentive to parts of the program.
7. To use various means of defeating the program as a way of feeling legitimate about getting discouraged and giving up.
8. To maintain an attitude that losing weight is impossible.
9. To seek out others who are overweight and use this as an excuse for retreating from the program.
10. To maintain the belief that no matter what I do, I cannot lose weight.
11. To say that one understands a concept when in fact one does not.
12. Always making excuses outside of oneself (blaming) for not having carried out the assignments.
13. Breaking the diet for one day is an excuse to break it for several days.

WEIGHT REDUCTION PROGRAM

Self-Instruction Strategy

The purpose of self-instruction is to help you, at decision points, to make goals-attainment choices instead of self-defeating ones. Before you used one or two statements and attached them to a specific cue. Now you will develop several statements to say to yourself.

The self-instruction package should contain statements from three basic areas: (a) confronting the problem, (b) an elaboration of the negative effects of SDB (prices) and/or the beneficial effects of GAS, and (c) reinforcing self-statements. We will consider each part separately and then put it together in a total package.

Confronting the problem - When you are confronted with a problem food, situation, feeling, etc. you might use self-statements like the following to aid in making goals-attainment choices.

"I can meet this challenge."
"I can handle this _____."
"This desire for a _____ is what I knew I would feel. It is a reminder for me to rehearse my reasons for wanting to lose weight."
"This hunger (stress, anxiety, etc.) feeling can be an ally. A cue for me to cope with my SDB."
"There are my self-defeating thoughts which is a cue to STOP before they get out of hand."
"This situation is a cue which is a reminder of what I have to do."
"One step at a time; I can handle this situation."
"Just think about what I have to do, not my self-defeating thoughts."
"I always have a choice. I won't let food control me."
"Think rationally. What can I do to control this situation."
"Don't try to eliminate the temptation totally; just keep it manageable."
"I can reason my temptation away."
"It will be over shortly."
"Just think about goals-attainment thoughts."
"I can be around problem foods and control my behavior."
"Here comes a SDB technique. STOP! I can choose to go the other way."
"I can control other impulses, so I can control my eating."
"I am going to succeed this time."
"I really care about myself and I want to lose weight."
"The more I think about what I am doing the easier it is to control my eating, etc."
"I am not going to let my SDB win."
"Just because I am tired, angry, upset, etc. I am not going to let that cause me to eat and bring on my SDB."
"This food will only taste good for 5 minutes but the benefits of GAS will last for years."

The elaboration of the negative effects of SDB (prices) and the beneficial effects of GAS - Just to say I want to lose weight or I want to

lose weight for health reasons, appearance, getting a job, or clothes is not enough. In order for the unwanted effects or desired effects to have a greater impact for you, it is necessary to elaborate on them. Make them as explicit, detailed, emotionally charged and immediately meaningful as possible. The more elaborate, detailed, real and emotionally charged you make them, the better. Generating a variety of statements, writing them out and rehearsing them is a must.

For example: "I can hardly button my pants in the morning. I feel tired and uncomfortable. I have trouble walking up steps. I know my overweight is making my heart work too hard because I can feel it pound when I do much of anything. I really feel disgusted with myself for being a slave to food."

"By losing weight, I will feel better about myself. I will be more confident because I know I can control my eating behavior. I will not feel as shy because of my weight. I will be able to participate in swimming and not feel embarrassed."

"By losing weight, I will be able to wear my blue dress and feel very attractive. I will feel very good about myself. My husband, children or boyfriend will appreciate me more."

You must make immediate and repeated connections between your reasons for wanting to lose weight and your urge to engage in self-defeating behavior.

Reinforcing Self-Statements - You need to reinforce yourself every time you choose a goals-attainment behavior.

For example: "It's working; I was able to do it. I'm actually not going to be self-defeating."
"It wasn't as bad as I expected. I made more out of this craving for food than it is worth."
"When I control my self-statements, I can control my eating and that's good."
"It's getting easier each time I use this procedure."
"I am really pleased with the progress I am making."
"Changing my eating habits is tough, but I am doing it."
"I am more in control of my eating than I thought I could be. It is me that is in control, not the damn food."
"I was able to make my reason for losing weight really vivid and my desire to eat just faded away."
"I did it!"

The following is an example of a complete statement incorporating all three areas.

"I can meet this challenge. I know how I implement my SDB and I am not going to let it win. I am not going to make any excuses that will let me eat that piece of cake. I know I can choose not to eat it. It is very important to me that I lose weight. I will be interviewing for jobs in a few weeks and I want to look the best I can. I know that

overweight people are discriminated against. I really want a good job and I want to feel good about my appearance. It's working, I am not going to be self-defeating. It's tough but I am doing it. I feel good."

You will have to practice at actually "talking to yourself" in a positive way instead of a self-defeating way. The better you become at rehearsing these self-statements, the easier it will be to resist each desire for self-defeating behavior.

Assignment

Isolate one or two problem areas (situations, foods, feelings, etc.) and develop a self-instruction package for each area including statements that will have the greatest impact for you from each section. The statements above are only suggestions. Then, rehearse these statements several times and implement them.

APPENDIX D

Detailed Outline of Each Counseling Session

APPENDIX D

Activities at Each Counseling Session

Session I

a) Use a few minutes to get acquainted with the client.
b) Explain self-management and your and the client's responsibility.
   Co: teach the client techniques that will allow him/her to control their own behavior and reach their goal.
   Cl: implement the techniques, perform the homework assignments, record one's weight on specified days, and be committed to the program for 20 weeks.
c) Discuss the conceptual model of eating behavior. Try to get the client to understand and accept it. Use examples from the articles or personal examples and get the client to validate the model from their own experiences.

   Points to emphasize:
   1) The immediate positive effects but long-term aversive effects of overeating and the role this plays in our eating behavior.
   2) Eating habits are learned and are a result of a complex system of attitudes, ideas, assumptions, and feelings. Eating habits can be changed through learning (important).
   3) The role of external cues and feelings in our eating habits.
   4) The logical consequences of this model.

d) Set very realistic weekly and phase goals. It is important that the goals not only involve weight loss but also the activities that will lead to weight loss. There should always be an activity goal for each week. It is easy to get discouraged with just a weight loss goal. The activity goal for the first week will be sticking to the diet for the entire week.

   Points to emphasize:
   1) It took a period of time to gain the weight and it will take a long period of time to lose the weight. Must think of weight loss as a long-term goal.
   2) Research shows that a 1-2 pound loss per week is the healthy approach. Too rapid loss of weight is hard on the body.
   3) Try to get the client to set a minimum goal of 1 pound per week loss and 5 pounds at the end of the 5 weeks. Anything over is considered a bonus.
   4) Because weekly weight can fluctuate greatly due to body fluids, it is important that one finds goal satisfaction from performing

the activities that will lead to long-range weight loss.
5) A long-range activity goal is the changing of one's eating habits so there can be a permanent weight loss.

e) Implementing the diet plan. A calorie deficit must be created in order to lose weight. But one does not want to create extreme states of deprivation - get too hungry it makes it easier to break the diet and give up the diet plan. Also, on any diet one wants to control the states of deprivation - three meals a day is recommended. The more extreme the diet the harder it is to stay with it for an extended period of time. On starvation diets, a person will lose muscle mass as well as fat. The protein of the body (muscle) will break down, as well as the fat, to supply energy to the body. Most nutritionists will recommend not going below 1200 calories a day and a balanced diet. If the diet is not balanced then specific hungers can occur.

Most people will choose between a 1200- to 1500-calorie plan. Be sure that the client understands the food exchange plan. The biggest problem is taking more food than is allowed per exchange and not counting some of the items in a food serving. When in doubt, be conservative and take the smaller portion.

Emphasize that the clients are going to experience hunger in order to lose weight.

f) Homework assignments
1) weigh themselves on the specified day.
2) record the level of hunger for each day.
3) check each day that they stay on the diet.
4) look for experiences that will validate the eating model in their own environment.

Session II

a) Discuss the homework assignments.
b) Discuss the reasons for their weight problems. This should lead directly into step three.
c) Implement situational strategies. This will have to be personalized depending on the individual situation. Pick two or three strategies with the client that are appropriate to his/her situation. The client will implement these this week. See attached sheet for a list of situational strategies from Slim Chance in a Fat World.

Several techniques will be appropriate regardless of the situation. They are: 1) slow down the rate of eating, 2) develop a social support system, 3) make small portions of food appear large, 4) control states of deprivation, and 5) develop alternative responses for problem situations and feelings.

d) Assess motivation (commitment to change).
Approach this in terms of the following questions:

1) How aversive is being overweight for the client?
2) How important is it to the client to lose weight?
3) How much effort does the client feel that it will take to lose weight? How much effort is the client willing to expend?
4) What are the positive consequences of losing weight?
5) What is the client's expectation of success?

Also, determine what is more important in the client's life than losing weight and what is less important. Where does losing weight fit into the client's life?

Much of this material will be used in the next session.

Session III

a) Discuss homework assignments. Check for any problems with the diet and the results of the strategies.
b) Implement exercise program.
   1) Exercise serves two purposes in weight control. First, it helps create a greater calorie deficit, without using extreme diet measures. A calorie deficit could be created only by diet or only by exercise but by using both, it prevents either from going to the extreme. Second, exercise causes the body to secrete hormones that are necessary for breaking down the fat which is then used as energy. Exercise helps a person use fat as energy and not protein (muscle). Two people with the same calorie deficit: the one who exercises will lose fat at a faster rate than the one who does not exercise.

      Also, people who exercise regularly will usually report feeling better. Exercise is a useful alternative response to problem feelings (stress, boredom, etc.). Vigorous exercise will suppress hunger feelings for a period of time.

   2) Increasing one's exercise can be approached in two ways.
      a) Increasing the client's exercise during their normal everyday activities such as walking up stairs instead of taking the elevator, walking to class instead of taking the bus, walking to the store instead of taking the car, etc.
      b) If the person is inclined, a regular exercise plan can be arranged which could include walking, jogging, cycling, swimming, etc. Emphasize that the person starts off slowly and gradually increases. Walking is a regular exercise everyone can do - a brisk 15-20 minute walk each day.
      c) Get the clients to state what they plan to do this week to increase their exercise and have them check each day they carry it out.

c) Discuss model of self-statements.
   Get the client to accept that self-statements play a role in controlling behavior. You can use personal examples and have the clients state some of the self-defeating things they have said to

themselves in the past, which allows them to go off their diet or not do the things they should be doing in order to lose weight.

d) Develop motivational self-statements.
Emphasize the idea of substituting self-statements that will help the client stay committed to the program and which will allow them to reach their goal instead of the self-defeating statements.
1) Have the clients write down at least seven statements that will help them at problem times (positive consequences of losing weight, negative consequences of not losing weight, etc.). These should be highly personal statements that have great significance for the client. Some of the material on motivation in session II should be of help here. If the client has trouble you might suggest some ideas.
2) Have the clients pick the two most important statements and write them on a 3 x 5 card which they will carry with their diet cards.
3) The client will review these statements at least once a day and/or at problem times during the day. Suggest that they do it mentally. The card is only a reminder.
4) Check for each day they use the self-statements.

e) Homework assignments
1) weigh themselves on the specified day.
2) continue to record the level of hunger for each day,
3) check for each day they stay on the diet.
4) check for each day they implement the specified exercise.
5) check for each day they use the motivational self-statements.

Session IV

a) Discuss homework assignments. Assess their exercise program and have them specify exercise for this week. Assess how the motivational self-statements worked. Deal with any problems so far (are they still using the situational strategies?).

b) Attaching self-statements to recurring cues.
1) The feeling of hunger is one cue that will be used. In order to lose weight, one must be willing to experience a certain amount of hunger. Attempt to identify what the person usually says to him/herself when he/she feels hungry (focus on how hungry he/she feels, how good something will taste, how long is it before I will eat, etc.). Try to get the client to accept the fact that many of his/her self-statements can be self-defeating. Then, have the client develop a substitute statement that is more positive (e.g., "I know I must feel hungry in order to lose weight and this is evidence that the fat is melting away and I will achieve my goal of ...") You can use some of the motivational self-statements from the last session.

Instruct the client to repeat the statement each time he/she feels hungry.

2) Pick a second cue related to the problem (situation, particular food, feeling, etc.) and go through the same process.
3) Have the clients check each day they utilize the self-statements.

c) Develop alternative responses to problem situations and feelings. Isolate the one or two most problematic situations or feelings of the client (stress of tests, papers due, going home for the weekend, boredom, going to parties, drinking, etc.) and help the clients develop a list of alternative behaviors in those situations which will help them encounter the situation and handle it successfully. Have the clients write down the alternatives. Encourage the idea of planning ahead in terms of handling a problem situation.

d) Homework assignments
1) implement self-statements to cues.
2) implement alternative behaviors if appropriate.
3) continue to check for each day they stay on diet, exercise, and use self-statements.

Session V

a) Discuss homework assignments.

b) Prepare the client for carrying on the program for the next five weeks.
1) Review the steps in sessions I-IV and discuss how they can continue to use them on their own (self-management).
2) Set goals for the next phase.
3) Help the clients prepare for anticipated problems (stress of finals, spring break, etc.). Help them outline how they will handle these situations. Emphasize that if they get off the diet, get back on it as soon as possible.
4) Assess the clients' expectation of success for the next five weeks.
5) Give them the graph and checklist form for the next five weeks which is to be completed.
6) Arrange for the time and day they will report to room 250 and weigh themselves. Show them the form they will complete and give to Linda. Must be during the day.

Report the time and day to Randy.

c) Tell the clients that you will be in contact with them during registration of spring quarter to arrange a meeting time for the next five meetings.

Session VI

a) Assess, in detail, the progress of the client during the last five weeks:
1) any problems that occurred.

2) how these problems were or were not handled.
3) if they were not handled well, what could have been done, in retrospect, to handle it.
4) reinforce successes.
5) assess the client's feelings about the last five weeks in terms of how confident they are to implement the program on their own. If they were not successful, do they have any feelings of failure, low self-concept, cognitive set to fail, etc.? If successful, do they have any changes in their self-concept.

b) Reasses the client's motivation for losing weight. Is it the same or different now? Any new aspects to motivation? How do they feel at this point in time concerning the program? What is their expectation of success for the next five weeks?

c) Reimplement or continue to implement the strategies which they found most helpful during the first ten weeks.

d) Set goals for the next five weeks.
1) weight loss
2) diet
3) exercise
4) situational strategies and self-statements

e) Homework assignments
1) weigh themselves on the specified day.
2) continue to record diet, exercise, and strategy on checklist form.

Session VII

a) Discuss homework assignments.

b) Discuss the A-B-C model of behavior. Use handout. If the client already accepts the idea that self-statements control his/her behavior, introduce it as a review and ask them questions to determine how much they really believe it.

Emphasize:
1) the belief system is symbolized by self-statements.
2) some self-statements are implicit and consequently behavior often seems automatic (e.g., when I get hungry, I automatically eat cookies). But, at some point in the course of learning, there were self-statements (e.g., Cookies taste good. When I get hungry, I want something that tastes good. Therefore, I will eat cookies when I am hungry.).
3) Start with non-weight loss examples and get the client to agree (e.g., Ellis' irrational ideas). Then progress to weight loss examples (e.g., problem food ⟶ "That looks good. I will cut down tomorrow so it won't matter if I eat it." ⟶ Eating the problem food; or, problem food ⟶ "That looks good, but

the pleasure will last for only a minute and it will keep me from reaching my goals and getting what I really want. Therefore, I will say no." ——→ not eating the problem food.).

4) Before the behavior occurs the person always has a choice.
5) Get the client to buy into this model. If he/she does not, it will be difficult for him/her to accept the rest of the treatment package.
6) What we tell ourselves, influences the kinds of choices we make in respect to weight control.

c) Discuss eating behavior is an act of choice - use handout. Almost everything one does involves making a choice on some level. This includes eating. What and how much we eat is clearly a choice behavior. The food we eat is being placed in our mouths by our own hands. In a weight control program a person has a clear choice between staying on the diet and engaging in the necessary activities which lead to weight loss or doing those things that lead to self-defeating behavior.

Emphasize:
1) Get the client to see him/herself as a chooser.
2) Factors that lead to self-defeating choices.
   a) Fear - Determine if the client can identify any fears in him/herself. If so, discuss the rationality of these fears.
   b) Techniques - Determine if the client can identify any techniques to use in the future. Discuss how the client implements these techniques.
   c) Disowning - Discuss how disowning leads to self-defeating behavior. Determine how the client disowns his/her eating behavior.
   d) Prices - Discuss the prices the client is paying for his/her SDB and weigh them against the benefits of losing weight.
   e) Try to show how these factors enter the model at point "B" and influence one's choice of SDB.
3) Discuss the factors that lead to goals-attainment choices.
4) If time permits, go over the ways to defeat a weight reduction program.

d) Homework assignments
1) weigh on specified day.
2) continue checklist form for diet, exercise, etc.
3) complete the SDB worksheet.
4) look for and change SDB patterns.

Session VIII

a) Discuss homework assignments.
1) check on diet, exercise, etc.
2) review the SDB worksheet with the client.

b) Review the main points of last week's session. This can be combined with the SDB worksheet. Be sure the client understands:

1) the role of self-statements in our choices (A-B-C model).
2) eating behavior is an act of choice.
3) factors that lead to SDB.
4) factors that lead to GAS.

c) Develop a self-instruction package.
The self-instruction strategy will be an elaboration of the self-statements used in the first treatment phase. The purpose of self-instruction is to help the client, at decision points, to make goals-attainment choices instead of self-defeating ones. Before the client used one or two statements, but now he/she will develop several statements to say to oneself.
1) Use the handout to discuss this with the client.
2) Isolate one problem area and develop a self-instruction package. The problem should be something the client will encounter this week.

d) Rehearse the self-instruction.
Role play or set up the problem situation in the client's mind and have the client verbally rehearse these statements several times.

e) Homework assignments
1) weigh on the specified day.
2) continue checklist form for diet, exercise, etc.
3) implement self-instruction this week; use checklist form.
4) write another self-instruction for a second problem (assignment on handout).

Session IX

a) Discuss homework assignments.
1) check on diet, exercise, etc.
2) assess implementation of self-instruction package
3) assignment to write another self-instruction package

b) Review the purpose of self-instruction and stress the need to practice actually "talking to yourself" in a positive way. This can be done when you review the homework assignment (#3).

Emphasize:
1) including the three areas in their self-instruction package

c) Rehearse the self-instruction (same as last session).

d) Discuss how the client might use the idea of self-instruction in the future with unexpected problems with weight control (transfer of learning).

e) Discuss the issue of using self-instruction by planning ahead for situations where SDB might occur. Emphasize keeping self-statements relevant.

Isolate a situation occurring this week where the self-instruction will be used.

f) Have the client start thinking in terms of what they can do to reach their goal after the formal counseling is over and the program has ended (for further discussion next time). Isolate strategies that can be used the rest of their life.

g) Homework assignments
   1) weigh on the specified day.
   2) continue to check for diet, exercise, self-instruction, etc.
   3) implement self-instruction this week.
   4) think about how they will reach their goal when counseling and program are over.

Session X

a) Discuss homework.
   1) diet, exercise, etc.
   2) self-instruction.

b) Discuss what the client is going to do to reach his/her goal when the program is over (set goals for the next phase).

c) Prepare the client for carrying on the program for the next five weeks:
   1) review eating as an act of choice and self-instruction.
   2) help client outline how he/she will handle the next five weeks. What to do if he/she finds him/herself slipping.
   3) assess the client's expectation of success for the next five weeks.
   4) give the client the checklist form for the next five weeks which will be turned in (graph if he/she wants it).
   5) arrange for the time and day they will report to room 250 and weigh themselves. Give them the weight forms.

   Report the time and day to Randy.

d) Assess the client's feelings about the program and what they learned.

e) Tell the client that Randy will be in contact with them at the end of the quarter. Randy would like to discuss with them their impression of the program.

APPENDIX E

Treatment Implementation Rating Forms

APPENDIX E

WEIGHT REDUCTION PROGRAM

Counselor Implementation Self-Rating
(1st Treatment Phase)

Name: _____

Client: _____

According to the scale below, rate how well you performed in implementing the following concepts.

Do Not Understand		Slight		Moderate		Very			Extremely Well
1	2	3	4	5	6	7	8	9	10

Session I

1. Explaining the concept of self-management: _____
2. Discussing the conceptual model of eating behavior: _____
3. The setting of weekly and phase goals: _____
4. Implementing the diet plan: _____
5. Giving the Homework assignments: _____

Session II

1. Implementing at least two situational strategies: _____
2. Assessing the client's motivation (commitment to change): _____
3. Giving the homework assignments: _____

Session III

1. Implementing an exercise program: _____
2. Discussing the model of self-statements: _____
3. Developing motivational self-statements: _____
4. Giving the homework assignments: _____

Session IV

1. Implementing the use of self-statements to recurring cues: _____
2. Developing possible alternative responses to problem situations: _____
3. Giving the homework assignments: _____

Session V

1. Reviewing the steps of the first four sessions: _____
2. Helping the client set goals for the next phase: _____
3. The general preparation of the way to carry on the program by themselves: _____

WEIGHT REDUCTION PROGRAM

Counselor Implementation Self-Rating
(2nd Treatment Phase)

Name: _____

Client: _____

According to the scale below, rate how well you performed in implementing the following concepts.

Did Not Implement		Slight		Moderate		Very			Extremely Well
1	2	3	4	5	6	7	8	9	10

Session VI

1. Assessing the client's progress during the last five weeks: _____
2. Reassessing the client's motivation: _____
3. Reimplementing or continue to implement strategies: _____
4. Setting goals for the next five weeks: _____
5. Giving homework assignments: _____

Session VII

1. Presenting the A-B-C model of behavior: _____
2. Getting the client to accept the model: _____
3. Presenting eating as an act of choice: _____
4. Getting the client to see him/herself as a chooser: _____
5. Discussing the factors that lead to SDB: _____
6. Discussing the factors that lead to GAS: _____
7. Giving the homework assignments: _____

Session VIII

1. Reviewing the main points of A-B-C model and eating as an act of choice: _____

2. Developing a self-instruction package: _____

3. Rehearsing the self-instruction package: _____

4. Giving the homework assignments: _____

Session IX

1. Review the purpose of self-instruction and the need to practice: _____

2. Rehearse the self-instruction package: _____

3. Discuss the self-instruction in terms of future unexpected problems: _____

4. Giving the homework assignments: _____

Session X

1. Review eating as an act of choice and self-instruction: _____

2. Setting goals for the next five weeks: _____

3. Preparing the client for the next five weeks: _____

WEIGHT REDUCTION PROGRAM

Counselor Implementation Rating Form

Counselor: _____

According to the scale below rate how well the counselor performed in impelemnting the following objectives.

Did Not Implement	Slightly Mentioned the Objective	Implemented Moderately Well	Implemented Very Well	Implemented Extremely Well
1	2	3	4	5

1. Model of Eating Behavior

   a. The immediate positive effects but long-term aversive effects of overeating: ____

   b. Eating habits are learned: ____

   c. The role of external cues and feelings in eating behavior: ____

2. Model of Self-Statements

   a. Self-statements play a role in controlling behavior: ____

   b. Self-statements can lead to self-defeating behavior: ____

3. Motivational Self-Statements

   a. Certain self-statements will help the client stay committed to the program: ____

   b. Developed at least two self-statements the clients will use during the week: ____

4. Attach Self-Statements to Recurring Cues

   a. Attach a self-statement to hunger: ____

   b. Attach a self-statement to a second problem area: ____

5. A-B-C Model

   a. The belief system is symbolized by self-statements: ____

   b. Before the behavior occurs the person always has a choice: ____

c. What we tell ourselves influences the choices we make: _____

d. What and how much one eats is clearly a choice: _____

6. Eating as an Act of Choice

a. Factors that lead to self-defeating behavior:

Fear _____

Techniques _____

Disowning _____

Minimize prices _____

b. Factors that lead to goals-attainment: _____

7. Self-Instruction

a. Discussed the purpose of self-instruction: _____

b. Included the components of self-instruction:

Confronting the problem area _____

Elaboration of positive and/or negative effects _____

Reinforcing self-statements _____

c. Rehearsal of the self-instructional package: _____

d. The need to practice talking positively to yourself: _____

APPENDIX F

Posttreatment Questionnaire

APPENDIX F

WEIGHT REDUCTION PROGRAM

Posttreatment Questionnaire

Name: _____

In order to get a better understanding of weight loss procedures, it is useful to have the participants give their reactions to the program. Your honest reactions will allow for improvement in the program and will be of benefit to future participants. Please answer the following questions.

1. It is very common for peoples' motivation to lose weight to vary during the different parts of the program. Please circle the level of your motivation at the different phases.

	Very Low		Mod.		Very High
a) Prior to meeting with the counselor for the first time (over Christmas holidays)	1	2	3	4	5
b) During the first five meetings with your counselor	1	2	3	4	5
c) During the first five weeks on your own	1	2	3	4	5
d) During the second five meetings with your counselor	1	2	3	4	5
e) During the second five weeks on your own	1	2	3	4	5

f) At what point in the program did you believe you had the best chance of succeeding? Circle <u>one</u> item from a-e above.

Was I sure I would succeed during ...	a	b	c	d	e	(Circle one
or						
Thought I might succeed during	a	b	c	d	e	only)

g) At what point in the program did you believe you would fail? Circle <u>one</u> item from a-e above.

Was sure I would fail during	a	b	c	d	e	(Circle one
or						
Thought I might fail during	a	b	c	d	e	only)

h) Please, explain, as best you can, what caused the change in your motivation during the different phases of the study.

2. In order to understand the strong and weak parts of the treatment package, please give your reactions to the following.

a) Your understanding of the following treatment concepts:

	Very Poor		Mod.		Very Good
1) Self-Management	1	2	3	4	5
2) Diet plan	1	2	3	4	5
3) The role of exercise	1	2	3	4	5
4) The use of self-statements	1	2	3	4	5
5) A-B-C model of behavior	1	2	3	4	5
6) Eating is an act of choice	1	2	3	4	5
7) Self-instruction strategy	1	2	3	4	5
b) The book, <u>Slim Chance in a Fat World</u>	1	2	3	4	5
c) The counselor's presentation of the treatment concepts	1	2	3	4	5
d) The counselor's general knowledge of weight control	1	2	3	4	5
e) Your relationship with the counselor	1	2	3	4	5
f) Your expectation that you can lose weight on your own	1	2	3	4	5
g) Your expectation that you can keep the weight off that you have lost ...	1	2	3	4	5

h) What single component of the treatment package did you find most helpful?

What other components did you find helpful?

i) What single component of the treatment package did you find least helpful?

What other components did you find less helpful?

3. Please rate how well you implemented the following concepts of the treatment package.

	Did Not Use		Used Mod.		Used Extensively
a) Diet plan	1	2	3	4	5
b) Increased exercise	1	2	3	4	5
c) Self-statements (first five weeks) ..	1	2	3	4	5
d) Exercising choice in your eating behavior	1	2	3	4	5
e) Self-instruction	1	2	3	4	5

4. Can you think of one thing that could have been done which would have been more helpful to you in losing weight?

I appreciate your efforts in providing me with ideas that may help future participants in weight control programs.

Thank you,
Randy Gold

APPENDIX G

Supplemental Description of Each Client

APPENDIX G

Supplemental Description of Each Client

Ann. Ann was a 21 year-old, single female who was 69% overweight. Ann reached her peak weight (215 pounds) in late August, which was approximately five months prior to the beginning of this study. She went on a tuna diet in September and lost to 183 pounds by late November but started regaining the weight to the point where she entered this program.

The stated reasons for wanting to lose weight were: (a) health; which was described as preventive measures; (b) future profession as a medical doctor, which involved patient appeal; (c) appearance to the opposite sex; and (d) ease of buying clothes. She rated her weight problem as slightly to moderately unpleasant and that it was moderately important that she lose weight.

Ann stated that boredom and pressure from classes were related to her eating behavior. She used food during her study breaks as an excuse to leave her room. She lived in a university dormitory. Also, pressure from her friends to drink and from her boyfriend to have dinner out, made it difficult to maintain a diet. She stated that possible causes for her weight problem were eating and cooking habits.

Her motivation for losing weight appeared to be very weak. She stated that being overweight had never bothered her socially nor was it very uncomfortable to her. Her primary motive was the image she would have as a medical doctor. She had difficulty stating positive consequences of losing weight and felt that there were a lot of things more important to her than losing weight. When the diet was not maintained during the week, she offered many excuses.

Counselor E described their relationship as poor. The counselor thought that the client quit after the second session of the first treatment phase but continued to attend the sessions because she had committed herself to the study. After Ann stopped attending the counseling sessions during the second treatment phase, she agreed to weigh herself at the end of the second treatment phase and at the end of the second withdrawal phase.

It seemed that Ann did not accept the concepts of the treatment package and thought she could lose weight on her own. She stated that she understood the purpose of the self-statements but did not use them.

Beth. Beth was a 24 year-old, single female who was 64% overweight. She weighed about 200 pounds in the seventh grade and 250 pounds by the eleventh grade. Beth's highest weight was 296 pounds, which was approximately four years ago. At that time, she joined Weight Watchers and lost 60 pounds and reported going up and down since then. She weighed 260 pounds in October, 1974, and had lost to 217 pounds by March, 1975. She regained about half of the lost weight by the beginning of this study.

Beth stated that her weight problem was very unpleasant and that it was very important that she lose weight. She stated several reasons for wanting to lose weight: (a) because of her religion, she felt that her weight problem was outward evidence of a lack of self-discipline; (b) she would look and feel better by losing weight; (c) she could make and wear nice clothes for herself; (d) she would be less self-conscious when she lost weight; and (e) losing weight would help her career. She felt that much of her overeating was caused by nerves and life-long habits. She ate most when she was anxious or depressed.

Beginning with the third treatment session, Beth's motivation to change did not appear to be as strong as she had stated it. She felt that she should lose weight and there were some guilt feelings associated with being overweight, but she would offer numerous excuses for breaking the diet. She also had difficulty accepting the self-statement concept. She could readily identify the negative self-statements she was using, but she had difficulty in developing self-statements of the positive consequences of losing weight. She also had strong feelings against self-reinforcement because of her religious views. She was not willing to do the necessary activities that would lead to weight loss.

Ken. Ken was a 20 year-old, single male who was 58% overweight. In September, 1975, Ken weighed his maximum (307 pounds) and at that time saw a doctor at Michigan State University Health Center. He stayed on the diet that was given him until November 21, 1975 (his birthday), and lost 25 pounds. He had regained some of the weight prior to entering this program.

The stated reasons for wanting to lose weight were health, sports, and finding a job. He rated his weight problem as being between moderately and very important. He had a strong verbal commitment to the program, but his behavioral commitment was very inconsistent. There was never a week during either treatment phase during which he maintained the diet for the full seven days. His primary problem area for maintaining the diet was social situations. He seemed to have unrealistic expectations concerning weight loss. For example, he felt he could lose 10 pounds the first week, and thereafter five pounds per week.

During the first treatment phase, Ken had difficulty developing motivational self-statements, and the ones he did present did not seem to be relevant to his stated motives. He had difficulty seeing how

other factors affected his ability to stay on the diet. He was able to lose 14 pounds during the first treatment phase, but the counselor was concerned about his ability to succeed in the withdrawal phase because of his inconsistency with the diet and other aspects of the treatment package. Ken accepted the logic of the program but could not internalize the procedures. The concern of the counselor was confirmed, since the client gained 15 pounds during the first withdrawal phase.

The ninth and tenth treatment session seemed to be a turning point with Ken. After the presentation of the "eating as an act of choice" concept, he started to become aware of the factors which affected his overeating. He had a large emotional investment in his overweight which was closely tied into his identity. Ken also stated that one reason for entering the program was to prove to himself that he could lose weight since he had not been very successful in the past. Yet, the fear that he did not have control over his behavior allowed him not to take the risk of fully committing himself. If he failed, there was always the excuse that he could do it if he really wanted it.

The counselor stated that they had an excellent relationship and that the client during the last counseling sessions accepted the idea that he did have a choice over his eating behavior. In comparing the first withdrawal phase with the second, a change in his behavior was evident. Several more counseling sessions might have been beneficial to Ken in allowing him to gain control over his eating behavior.

Fran. Fran was a 22 year-old, married female who was 56% overweight. She stated that her eating problems were snacking at night, eating a lot of junk food, and a reduction in physical activity.

Fran rated her weight problem as being very unpleasant and losing weight as very important to her. Her stated reasons for wanting to lose weight were: (a) she would look and feel better, (b) she would not be embarrassed to swim or shop for clothes, and (c) her husband would appreciate it.

During the first treatment phase, Fran was highly motivated. She reported that she received a lot of support from her husband and it was important to her and him that she lose weight. She seemed to have very specific goals in mind that helped her. She was very enthusiastic about the treatment package and was very consistent in performing the homework assignments. However, during the fifth session, she reported having more trouble staying on the diet and stated some feelings of being cheated or deprived by dieting when others could eat. She also reported losing some confidence in her ability to lose weight when she did not maintain the diet.

When Fran returned for the second treatment phase, she reported that from the beginning of the program her husband was her conscience for eating, which was starting to backfire. When her husband said yes, she would buy junk food or go off her diet, and when he said no, she would not. This worked for a few weeks but it got to the point where

she would "bug" him to let her eat and, when he would give in, she would resent him for letting her go off the diet. She had not learned to take the responsibility for controlling her own eating behavior. After discussing this issue with the counselor, she stopped using her husband as her conscience.

Fran identified some fears which helped her to stay overweight. These were: (a) a fear that she would not look all that great when she did lose weight; and (b) losing weight would eliminate the excuse for not doing certain activities such as playing volleyball and meeting new people. She used many negative self-statements which made it easier to break her diet such as "It has never worked before; it is just too hard; being fat is not that bad; and my weight problem is due to heredity". She also viewed being on a diet as a sacrifice.

The first withdrawal phase was detrimental to this client. She lost confidence in her ability to lose weight, which affected her attitude toward the program. It was not clear by the end of the second treatment phase that the client really accepted the responsibility for controlling her own eating behavior. It was easier for her to let some other person (husband) exercise that control even though it did not work in the long-term.

Gail. Gail was a 20 year-old, single female who was 44% overweight. Health was the primary motivation for wanting to lose weight. There is a history of diabetes in her family and she is more likely to postpone or avoid it if she is not overweight. Gail also stated that she would feel better if she lost weight and that she was tired of being fat. She rated her weight problem as being between moderately and very unpleasant and that it was very important that she lose weight. Yet, during the counseling sessions, it did not seem that her overweight bothered her very much and she could not anticipate many changes occurring if she lost weight.

Counselor E stated that they had a good relationship and thought that Gail understood the concepts of the treatment package very well. She appeared to be somewhat dependent on her meetings with the counselor to motivate her to lose weight. She accepted the concept of choice in her eating behavior. The proof that she could lose weight seemed to lower her motivation. The counselor thought that one of the primary motives for Gail was that she felt she should lose weight and that by participating in the program she was satisfying that should. Gail also mentioned that she feared some friendships might change if she lost weight but did not elaborate on it.

In the posttreatment questionnaire and interview, Gail indicated that her motivation to lose weight decreased slightly during the first withdrawal phase and remained lower for the rest of the program. She attributed her lower motivation to a more realistic view about her weight loss goals. She also indicated that in the beginning of the program, all of her roommates were on diets, which made it easier for her. But after a few weeks they discontinued their diets, which then

made it more difficult for Gail to continue hers. She stated that the concepts in the second treatment phase were more helpful to her and that she was very pleased with the progress she made during the study.

Jan. Jan was an 18 year-old, single female who was 44% overweight. She stated that her mother was always trying to feed her and maintained that she was not overweight. Jan had tried to lose weight by using diet pills, 1,200 calorie diet obtained from her doctor, Weight Watchers, and a general decrease in food intake. When she started this program, she weighed the highest in her life.

The stated reasons for wanting to lose weight were: (a) to improve her self-image which, would increase her self-confidence; (b) to feel more comfortable in her clothes; (c) to improve her back problem; and (d) to become more physically fit and perform gymnastic stunts. Although not explicitly stated, the counselor thought that attraction to the opposite sex and the possibility of more dates were also motives for this client.

Jan chose a 1,700 calorie diet plan and was not willing to reduce her calorie intake below 1,700 in order to lose weight at a faster rate. Her major problem area was going home for weekends and vacations. She understood the concepts in the treatment package and accepted them as useful ideas. Jan did express a fear that her lack of self-confidence might not be due to her overweight and that her social life might not improve greatly if she did lose weight.

Counselor F stated that they had a very good counseling relationship and that Jan seemed to enjoy the counseling sessions. After the second treatment phase, the counselor's expectations were that this client would be successful on her own in further attempts to lose weight.

During the second withdrawal phase, Jan gained weight over a three-week period and then started to lose again. In the posttreatment questionnaire and interview, she stated that there were a lot of pressures during that three-week period and weight loss became a low priority. She stated that she was very pleased with the program and that she had more confidence in losing weight now because she had a better understanding of the process. She was also aware of how her weight problem was associated with many other factors in her environment. She found the concepts in the second treatment phase most helpful, as well as the motivation self-statements. Her motivation showed a slight decline during the last 10 weeks of the program.

Kris. Kris was a 21 year-old, single female who was 41% overweight. She stated that she lost weight during the summer and gained weight during the school year. She had tried to lose weight five or six times by counting calories, water and protein diet, food exchange diet, and exercise.

The stated reasons for wanting to lose weight were health, appearance, and better self-image. She was very motivated and very consistent in performing the assigned activities. When she would maintain or gain weight after performing all the correct activities, she would become very frustrated. Toward the end of the second treatment phase, she was more willing to accept the goal of maintaining her weight. The counseling sessions helped her overcome some of the frustrations associated with her weight problem.

The counselor stated that they had a very good counseling relationship and that Kris understood the treatment package very well. In the posttreatment questionnaire and interview, Kris stated that the self-instruction strategy was the most helpful to her and that she was able to use it in other areas of her life, as well as weight problems. She also indicated that the first withdrawal phase was too long for her and that she became very frustrated during this period.

Lisa. Lisa was a 22 year-old, single female who was 37% overweight. Her mother was a diabetic who died at an early age because of the diabetes. She stated that her mother often made special desserts for her because her mother could not have them. She attributed her craving for sweets to this.

The stated reasons for wanting to lose weight were: (a) her clothes would fit better, (b) it would make her boyfriend happy, (c) she would look better and feel better, and (d) it was highly recommended that she lose weight because of the diabetes in her family. She rated her weight problem as being between moderately and very unpleasant and that it was between moderately and very important that she lose weight.

Counselor A reported that they had a fair-to-good counseling relationship. Lisa stated that she did not even try to maintain the diet during the first withdrawal phase. She seemed to understand and accept the concepts of the treatment package but would not implement them over a period of time. Lisa could not determine anything she was missing by being overweight. Also, she was receiving a payoff for being overweight. She stated that her weight "really bugged" her father and this was satisfying to her. This issue was not pursued in depth with her by the counselor. It also appeared that Lisa was receiving satisfaction from just talking with the counselor. She had a passive attitide toward her problems in general and was looking for some outside source to solve them.

In the posttreatment questionnaire and interview, Lisa indicated that she liked the program because it helped her in other areas of her life besides weight control. Also, she stated that her motivation was lowest during the first withdrawal phase and that it was too long for her.

Mary. Mary was a 21 year-old, single female who was 34% overweight. The stated reasons for wanting to lose weight were: (a) she

would be more attractive to men; (b) she would be more confident in her appearance; (c) she could buy better-fitting clothes; and (d) she would feel more comfortable, physically.

Counselor A reported that they had a fair-to-good counseling relationship but Mary was not very verbal or open and did not offer much information, especially in the beginning. During the second treatment phase, she did express some very strong feelings but then seemed to withdraw from the counselor at the end. She had a passive attitude toward her problems and wanted others to solve them for her. The only way she had learned to handle her negative feelings (e.g., anger, boredome, and frustration) was through eating. For example, she worked in a cafeteria and, when she would get angry at her boss or others, she would eat to get back at them. She could intellectually understand that her behavior was self-defeating, but she was not willing to change.

Mary was very worried about obtaining a job upon graduation which was a few weeks away. She had a very defeatist attitude toward making new friends. But she also used her weight problem as a form of emotional protection. She stated that she did not think she could get a job she wanted because of her weight, which then protected her from rejection. Also, she stated that sometimes she had serious doubts about her personality and feared that she would not be liked any better if she were thin.

The first withdrawal phase and her emotional problems worked against Mary's succeeding in weight loss. She needed to resolve some of her other problems before attempting weight loss.

Pat. Pat was a 20 year-old, single female who was 33% overweight. She rated her weight problem as being between moderately and very unpleasant to her and that it was very important that she lose weight. The stated reasons for wanting to lose weight were: (a) her clothes would fit better, (b) she would look better and feel lighter, (c) her family would be proud of her, and (d) she would be able to exercise without a lot of strain.

Counselor D reported that they had a very good counseling relationship. Pat would blame many factors such as parents, religious background, parties, and holidays as reasons for not maintaining the diet. This client seemed to have a very low self-concept which she wanted to discuss at length with the counselor. Her ability to lose weight was tied into a broader aspect of not caring about herself.

During the first withdrawal phase, she stated that she did not think about or use much of the material presented in the first treatment phase. She said that a lot of times "the weight stuff" was not as important as other things. Pat did not accept the idea that she had a choice over her eating behavior and feared that things would not change much if she did lose weight. The counselor thought that since Pat was studying nutrition and was going to do diet counseling, she wanted to see how a counselor worked. This was a payoff for being in the program.

In the posttreatment questionnaire and interview, Pat indicated that her motivation to lose weight was the lowest during the first withdrawal phase and that the first five weeks of treatment was too short for her. She stated that the second treatment phase was more helpful to her and that she was pleased with her progress. Pat stated that she was better able to understand her self-concept problems by working on her weight.

Tina. Tina was a 21 year-old, married female who was 36% overweight. The stated reasons for wanting to lose weight were: (a) she would improve her self-concept because she would be more attractive, (b) she would be able to wear many clothes that she had, (c) she would have better health and be able to engage in athletic activities with less effort, and (d) she would have a better sex life with her husband. She rated her weight problem as being between moderately and very unpleasant, and losing weight was rated between moderately and very important.

Counselor E stated that they had an excellent counseling relationship and that Tina was very open with her. She cared about improving herself and had a lot of insight into her eating behavior.

Tina understood and accepted the concepts of the treatment package. She made her reasons for wanting to lose weight very concrete and immediate for herself.

In the posttreatment questionnaire and interview, Tina stated that she liked the program very much, especially the concept of self-management. She was very pleased with her progress and had high expectations for continuing her weight loss.

Ron. Ron was a 23 year-old, married male who was 27% overweight. The stated reasons for wanting to lose weight were: (a) to increase his physical endurance, (b) to improve his health, and (c) to improve his appearance and self-image. He rated his weight problem as being very unpleasant to him and that it was very important to him that he lose weight.

Counselor B described their relationship as fair-to-good. Ron was not very verbal at the beginning of treatment but started sharing more toward the end of the second treatment phase.

In the posttreatment questionnaire and interview, Ron indicated that his motivation to lose weight was the lowest during the second treatment and the second withdrawal phase. It was the highest during the first treatment phase. He stated that the significant initial weight loss reduced his motivation for further weight loss. He indicated that he liked the book and the concepts during the second treatment phase but had difficulty implementing the self-instruction strategy.

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