# **OBESITY RELAPSE IN WOMEN**

by

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Dissertation submitted to the Faculty of the

Virginia Polytechnic Institute and State University

In partial fulfillment of the requirements for the degree of

### DOCTOR OF PHILOSOPHY

IN

# HUMAN NUTRITION, FOODS AND EXERCISE

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April 5, 2001

Blacksburg, Virginia

Keywords: Obesity, Relapse, Women, Qualitative, Case Studies

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(ABSTRACT)

Obesity and relapse after dieting pose a significant threat to an increasing number of adults in this country. Resistance to treatment and high relapse rates make this problem frustrating for patients and practitioners. There is limited research on relapse causation; research on social and life circumstance factors is uncommon. Given the limitations of existing research, the purpose of this study was to investigate the natural course of obesity relapse. A purposive sample of eight obese women, ages 31-57, was selected. All of the women relapsed at least one or more times throughout their lives. A qualitative study design was used to examine and integrate their attributions for relapse.

The qualitative paradigm was selected because it allowed for an inclusive study of relapse without confining the investigation to a predetermined set of responses.

Information was gathered on contributory factors: physical, social and psychological, but not limited to these areas. These factors were reported in a case study format. Verbatim quotes were used to provide descriptive information and insight into individual cases.

Cases were analyzed for main attributions; key words and phrases were used to develop categories. Common themes were derived from these categories and examined across the cases.

Conventional wisdom about the factors, which contribute to obesity relapse, was challenged by this research study. Excess calories and decreased physical activity were not the only conditions that were contributory to the respondents' relapses. Diverse social and psychological issues often combined with physical factors to dominate the respondents' attributions. The relapse attribution themes commonly represented in the case studies included: the impact of food restriction, the impact of having personal choice taken away, negative emotions, physiological factors, lifestyle demands and the return to familiar food habits.

Based on this study, it is recommended that obesity practitioners consider assessment and treatment modalities that are holistic. A paradigm shift away from traditional approaches may be a necessary step in providing more effective treatment. Additional research, which focuses on life circumstances and obesity relapse, is needed.

#### **ACKNOWLEDGEMENTS**

I would like to acknowledge Dr. Ann Hertzler and Dr. Bob Covert for their assistance. Bob Covert provided the initial inspiration for me to pursue a doctoral degree and to undertake this study of obesity relapse. In his unique way he defines the essence of a great educator. Bob was always receptive to my ideas, always encouraged me to believe in myself and continually inspired me to complete the daunting task of writing a dissertation.

Dr. Ann Hertzler was an equally powerful force. She also enabled this project by enthusiastically embracing the purpose and concepts behind my research. Through all of the ups and downs of this process, she spurred me on by just saying the word "exciting." I will always be appreciative of her enthusiasm and of her dedication to this project and to me. Drs. Hertzler and Covert believed, as much as I believed, in the reasons and need for this research. I would also like to thank the other committee members, Drs. Cox, Southard and Winett, for their valuable support.

I would like to express my appreciation to my family, especially to my husband Blake. He supported my graduate career in all ways. He has challenged me to live life to the fullest. My doctoral work is just one completed part of that challenge. I am also indebted to my parents and entire family. Finally, this acknowledgement would not be complete without a thank you to Liz and Gib, all of my friends and all of the study participants.

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#### **CHAPTER I**

#### INTRODUCTION AND STATEMENT OF THE PROBLEM

#### **OVERVIEW**

The subject of this dissertation is obesity relapse. Understanding why people regain lost weight is of particular concern since relapse occurs often and has detrimental consequences. Obesity predisposes individuals to a number of serious health problems, including diabetes mellitus, cardiovascular disease, and certain cancers. In addition to these diseases, the psychological fallout from unsuccessful maintenance of weight loss causes extreme personal distress for many people who struggle with obesity and its legacy of relapse.

The nature of obesity is complex and its scope is widespread. A large segment of the adult population in the United States is obese and the percentage of this population has increased over the last few decades. While overweight is defined as having a body mass index of between 25 and 29.9, obesity is technically defined as having a body mass index of greater than or equal to 30 (Mokdad et al.,1999). It has also been defined as having a body weight that is 120% of desirable weight for height (Dwyer, 1994). Using the classification of a BMI of 30 or above, recently published trend data from the National Health and Nutrition Examination Studies (NHANES) indicate that the prevalence of obesity is increasing in this country (Flegal et al.1998). These data show that in the United States the percentage of obesity increased from 14.5% during the period of 1976 to 22.5% during 1988 to 1994. These figures are unfortunate and defy the considerable professional effort and money spent each year on this burgeoning problem.

At any one time, tens of thousands of American adults are engaged in dieting practices. However, positive treatment outcomes (which are defined as including weight loss maintenance, absence of weight cycling and improvement in clinical status and quality of life) seem to elude both the practitioner and patient (Honig & Blackburn, 1994). The complexities of obesity and our incomplete understanding of all of the etiologic factors may be contributory to the perpetuation of obesity and its refractory nature (Honig & Blackburn, 1994).

The side effects that often accompany obesity compound the problem since the physiological and psychological consequences, which are attendant to being obese, are serious in nature. The Expert Panel on the Identification, Evaluation and Treatment of Overweight and Obesity at the National Heart Lung and Blood Institute (1998), states that overweight and obesity significantly increase an individual's risk for developing hypertension, dyslipidemia, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems. Increased body weight is also known to predispose women to breast and endometrial cancers and to predispose men to an increased risk for colon and prostate cancer (NHLBI, 1998). While the considerable effects of excess body weight on morbidity have long been established the impact on mortality has only recently been "rigorously estimated" (Allison et al., 1999). Allison and colleagues (1999) estimated that among adults in the United States, 280,000 annual deaths were attributable to obesity.

Regarding psychological consequences, there is conflict in the field of psychology as to whether psychological problems accompany obesity. While psychological literature fails to conclude that obesity increases a person's risk for developing psychological

problems, clinical impressions often lead the practitioner to believe otherwise (Reiff & Reiff, 1997; Brownell & O'Neill, 1993). Our society places a great deal of emphasis on thinness; obese people are discriminated against in all areas of life, from romance to jobs to insurance premiums (Sizer & Whitney, 2000). Furthermore, being obese in a society like ours that venerates the aesthetic ideal has been noted to have a negative impact on those individuals who equate body shape with self worth (Brownell & Wadden, 1991). Feelings of guilt associated with not being able to completely control body weight can often lead to perpetuation of obesity in some individuals. Cyclical dieting, followed by weight gain and ultimately weight loss relapse is often a result of these feelings of personal inefficacy regarding the weight loss struggle (Brownell & Wadden, 1991).

# **OBESITY RELAPSE**

There is little agreement on the exact definition of obesity relapse; this fact is evidenced in the reviewed literature that follows in Chapter II. In three of the research articles, relapse is characterized by the inability to gain control after breaking prescribed diet rules or violating self-determined rules. However, the majority of the articles reviewed from both psychology and nutrition journals classify relapse by weight gain parameters.

Notwithstanding this lack of agreement on the exact standard that defines relapse, leading obesity researchers agree that relapse after treatment completion remains an inevitable consequence for most dieters (Hill & Wyatt, 1999; Poston et al.,1999; Grillo, Shiffman & Wing, 1993). While exact prevalence rates of obesity relapse are unknown, obesity researchers note that the statistics for weight relapse after treatment are dismal.

According to Berkowitz (1994), there is a 36% regain of lost body weight in the first year following weight loss treatment. As time elapses, regain rates are even higher. Wadden (1993) noted that after three to five years most people gain back all of their lost weight.

The reasons that most people lose weight and then regain it continue to elude researchers. In an attempt to understand this complex problem, Berkowitz (1994) notes that relapse can be conceptualized in various ways--- biologically and environmentally. According to this author, one of the more salient biological explanations for relapse is the Body Weight Set Point Theory. This theory proposes that body weight is regulated very carefully and that even when an individual is temporarily successful at lowering body weight, the body will always return to its [heavier] "baseline weight level" (Berkowitz, 1994). Keesey and Hirvonen (1997) also point to the viability of this theory and to the possibility that the maintenance of obesity is affected by the defense of a body weight set point. Excessive hyperplasia and a low resting metabolic rate are two physiological characteristics often found in obese individuals. Both factors are thought to impact relapse by increasing the body weight set point and influencing the development and maintenance of the obese state (Keesey & Hirvonen 1997; Brownell & Wadden, 1992). Hyperplasia, or the process of increasing fat cell numbers, is influential because it is thought to be intractable. Once developed, fat cell numbers are a permanent fixture of the fat depot, making weight loss treatment that much more difficult (Brownell & Wadden, 1992). And, a lowered metabolic rate is thought to affect the maintenance of obesity by facilitating regain after loss (Astrup et al., 1999).

In addition to physiological factors, the environment is also thought to be a strong determinant in the maintenance of obesity and relapse (Hill & Peters, 1998; Berkowitz,

1994; Brownell & Wadden, 1992). Food availability, large portion sizes and decreased physical activity are all environmental factors that have impacted the growing trend of obesity in this country. In the United States, food which is high fat, inexpensive and calorically dense, is available almost everywhere (Hill & Peters, 1998). The dietary trend toward a higher fat diet has significance since excess calories from fat versus carbohydrate or protein has been shown to be more quickly stored as body fat (Hill & Peters, 1998; Coulston & Rock, 1994).

Not only have our food intake patterns changed but there has also been a subsequent decline in national physical activity habits. Occupational changes that no longer require physical labor, advances in transportation and our reliance on labor saving devices have contributed to a decrease in activity and a decline in caloric expenditure (Hill & Peters, 1998). Rippe (1998) reported that only 22% of adults in this country achieve the exercise recommendation of 30 minutes per day proposed by the Healthy People 2000 standards. Rippe (1998) and other researchers (Foreyt & Poston,1998; Hill & Peters, 1998) have linked this national "epidemic of inactivity" to obesity maintenance.

Despite cogent arguments for the impact of biology or the environment on the maintenance of the obese state, no single theory can be offered to adequately explain all of the "manifestations of obesity" (Mahan & Escott-Stump, 1996), or relapse. Genetics, cultural factors, and personal behaviors are all thought to exert an influence on body weight determination (Brownell & Wadden, 1992; Brownell & O'Neill, 1993). However, all of the etiological factors that influence obesity and relapse have yet to be explored. Brownell and O'Neill (1993) have suggested that perhaps the interplay of risk factors on certain individuals or specific "life circumstances" can account for obesity.

Unfortunately, research on life circumstances is missing from the scientific literature, yet it is clear from clinical practice that a person's life experiences strongly impact weight history (Brownell & O'Neill, 1993). In addition to this missing piece of the puzzle on obesity and relapse, there is a lack of information on the actual mechanism or natural history of the dieter's relapse. This lack of information may be due to the fact that relapse is so individually determined and that no reliable measures exist which assess relapse and perceived loss of control (Brownell, et al., 1986).

## **STUDY RATIONALE**

Obesity and relapse after dieting pose a significant threat to an increasing number of adults in this country. Resistance to treatment and high relapse rates make this problem frustrating for patients and practitioners. The dismal prognosis for keeping weight off are evidenced in the available statistics. According to leading obesity researchers, most people regain all of their lost weight three to five years after dieting (Poston et al., 1999; Wadden, 1993).

Beyond the few known contributors to the etiology of relapse, very little is known about the perpetuation of obesity and why people relapse back to original weight after successful weight loss. Little is known about the people who lose and regain weight (Kayman et al., 1990), the actual mechanism of relapse (Brownell et al., 1986), or many of the physical, psychosocial and environmental factors that contribute to its development. And, with the exception of Kayman's study in 1990, there are no other qualitative or quantitative studies that focus on the obese individual's attributions for

weight loss relapse. The limited amount of available information points up the need for a more comprehensive understanding of obesity relapse.

### PURPOSE OF THIS STUDY

Given the limitations of existing research, the purpose of this study was to find out more about the nature and substance of obesity relapse. Through a qualitative design, this study examined and integrated the in-depth descriptions of the experiences of eight women who have relapsed. Detailed descriptions were provided though the inclusion of actual personal accounts. Through the processes of analysis (Chapter V) and cross-case analysis (Chapter VI), these personal accounts allowed for the identification of common themes that contributed to obesity relapse. In addition, this study was designed to focus not only on physical factors, but also the psychological and life circumstance factors associated with relapse. This type of integrated research may assist patient and practitioners by providing greater insight into a complex problem that is not always amenable to pat prescriptions for caloric reduction or obesity drugs.

#### **OBJECTIVES OF THE STUDY**

- To investigate the natural course of obesity relapse by asking eight women that
  experienced relapse to give their attributions for relapse and to tell their personal
  stories of relapse.
- 2. To better understand key factors which were contributory to obesity relapse through use of a qualitative research design.

- To assemble and report the information from each of the eight interviews into a case study format.
- 4. To analyze each of the cases and to identify significant patterns which were contributory to obesity relapse.
- 5. To analyze cross case similarities and patterns and to construct these patterns or themes into a conceptual framework in the cross-case analysis section.
- To present recommendations for future obesity relapse treatment and research based on a conceptual framework.

### **DEFINITION OF TERMS**

Relapser: Study respondents who were obese, or had a body weight which was at least 120% of ideal weight, and had previously lost and regained 25 pounds or more of their weight at one or more times.

<u>Attributions</u>: Explanations or reasons given by the respondent as factors in their relapse experience.

<u>Fasting Diet</u>: Liquid or solid food diet plan that contained fewer than 1200 calories per day.

<u>Formal Diet Program</u>: A commercial or medically supervised weight control program that included routine weight checks. Some formal programs included medical follow-up and nutrition education. However, this was not a prerequisite for classification as a formal diet program. This study classified: Weight Watchers, IQ Health, Diet Center, Nutri-System, Weight Loss Forever, Optifast and Calorad as formal diet programs.

<u>Self-Designed Diet</u>: Weight loss diets or regimens that were created or designed by the respondent.

<u>Dichotomous View of Foods</u>: A limited view of foods; a classification of foods as good or bad.

#### **CHAPTER II**

#### REVIEW OF LITERATURE

The purpose of this chapter is to present an overview of existing information and research on obesity relapse, as well as information on current obesity treatment recommendations. Table 1 (at the end of this chapter) provides a summary of the research articles reviewed in-depth with respective definitions of relapse. Research articles in Table 1 are presented according to dates; beginning with Ancel Key's work in 1950 and ending with the Poston study which was published in 1999. In Table 1, the majority of the cited articles present data on female relapsers. This can be explained by the fact that women are more likely than men to join weight control programs (Wolfe, 1992), therefore, more information is available on female dieters and their subsequent relapse episodes. With regard to source and subject of the reviewed information, at least half of the relapse data that are available originate from psychology journals rather than from nutrition journals. The focus of the cited psychology oriented research articles is not on calories or the impact of nutrition on relapse, but rather on emotions or behaviors associated with relapse. In many of the articles, nutritional and physical factors, like caloric intake or exercise, are downplayed as influential factors in obesity relapse.

In an effort to provide a complete overview of relapse, information is presented and based on an integrated review of the research. Two proposed models are reviewed, the Cognitive Behavioral Model, which conceptualizes the dynamics of the occurrence of relapse, and the Boundary Model which offers possible reasons for uncontrollable eating.

As a follow-up to these models, information on factors associated with relapse is cited. Factors such as negative and positive emotions, social support, and achievement of a set

goal weight are discussed. Finally, treatment information specifically targeted to nutritionists and health practitioners, such as the recent recommendations of the National Heart, Lung, and Blood Institute's Expert Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults (1998) and the Weight Management Position of the American Dietetic Association, is highlighted in the final section of this chapter.

 Table 1.
 Summary of Obesity Relapse Literature Review

Study Title	Author; Relapse/ Regain Definition	Concepts Identified	Study Participants	Study Format	Comment
The Biology of Human Starvation	Keys, A., Brozek, J., Henschel, A., Mickelsen, O., Taylor, H.L. (1950); ********** Relapse is not discussed in this work on semi- starvation, but documentation illustrates the phenomena	Food cravings, excessive intake, and preoccupation with food are artifacts of a semi-starvation diet.	32 normal weight young men. Mean age 25.5 years (S.D 3.5 years) age range 20 to 33 years.	Conscientious Objectors participated in a semi- starvation diet for 6 months, and 3 months rehabilitation.	Study has implications for obese dieters that choose semistarvation regimens. Cravings and excessive intake postregimen could be driving relapse.
Determinants of Initial Relapse Episodes Among Dieters	Rosenthal B.S. & Marx, R.D., (1981);  ***********  "Relapse Episode" is defined as a violation of the subject's self-imposed rules used to govern their food intake and body weight.	Positive and negative emotions influence relapse.	86 women, students and staff who had participated in a 9 week weight loss program. Ages not given	Interview study conducted 60- 75 days post weight control program.	Intrapersonal (occurring while alone) vs. Interpersonal Factors (occurring with other people) not as critical as emotions.
Maintenance of Successful Weight Loss: Incidence and Prediction	Marston, A.R., & Criss, J. (1984); *********** Relapse definition is based on two standards: being overweight (more than 15% above desirable weight) at 1 year after weight loss	Eight key differences between relapsers and maintainers; maintainers take longer to lose weight, lose more wt., reach goal weight, exercise, not emotional eaters, fewer sleep disturbances.	47 formerly overweight, 9 men and 38 women; average age 37, age range (23-74).	Tracked by mail questionnaire one year after weight loss.	Study gives additional support to the premise that people who diet on their own fare better.

Table 1. Summary of Obesity Relapse Literature Review

Identification of High Risk Situations in a Behavioral Weight Loss Program: Application of the Relapse Prevention Model	effort; and regaining 20% or more of lost weight one year after dieting Schlundt D.G., Sbrocco, T. & Bell, C. (1989); ************* Authors concentrate on describing high risk life situations that cause dietary slips versus describing full blown relapse. "Slips" are defined as the violation of self-imposed dietary rules during weight reduction programs.	Negative emotions, positive social interactions, and physiological craving big three that precede dietary "slips" when engaged in a weight reduction program.	35 overweight individuals at least 20% above IBW, 5 men and 30 women; mean age 37 (S.D. 18 years)	Participants kept a continuous diary during a 10 week behavioral weight control program.	Also identifies influence of positive and negative moods on overeating.
Maintenance and Relapse After Weight Loss in Women: Behavioral Aspects.	Kayman. S Bruvold. W & Stem J.S. (1990); ********** Weight standards are used to define relapse. Relapsers are noted to be at least 20% or more overweight (using the mid- point of the weight range for medium frame, 1959 Met. Life tables), and have previously lost 20% or more of their weight	Key differences between maintainers, and relapsers: relapsers more likely to join wt. control programs, use restrictive dieting, eat due to negative emotions, and less likely to exercise, deal with problems and seek social support.	108 women recruited from a large HMO. Maintainers n=30, relapsers n=44, control n=34. Mean age 41 for maintainers, and 47 for relapsers.	Open-ended interview questionnaire lasting to 1.5 hours.	Dieting on own again seen as a distinct characteristic of maintainers; eating in response to negative emotions is characteristic of relapsers.

Table 1. Summary of Obesity Relapse Literature Review

	one or more times but				
Preventing Relapse in Obesity Through Posttreatment Maintenance Systems: Comparing Relative Efficacy of Two Levels of Therapist Support	regained it.  Baum. J.G., Clark H.B., & Sandler J. (1991); ********* Relapse is not directly defined, but it is implied that relapse is the process of not maintaining weight loss during follow- up periods of 3,6, and 12 months posttreatment.	After participating in a weight control program, patients supported by a therapist (during maintenance) are more successful than those given minimal support.	32 participants, 31 women, I man, just completed a 12 week behavioral weight control program. Mean age 39.9 years. Assessed 3, 6, 12 months post weight program.	Therapist supported group (n=15) receive 3 months additional treatment which includes relapse prevention booster sessions, mail/phone contact; vs. minimal support receive written contact.	Support after a weight control program or during maintenance period is integral to keeping weight off. This was supported by Perri's work (1994,1987, 1995).
Long-Term Maintenance Following Attainment of Goal Weight: A Preliminary Investigation	Wolfe, B.L. (1992);  *********  "Regain" is defined as not remaining within 10% of posttreatment weight one year after achieving weight loss goal.	Dieters who achieve goal weight or perceive themselves as successful had a high rate of weight loss maintenance 1 year after treatment. The concept presented is that achievement of goal weight enhances maintenance.	254 clients that attended Jenny Craig Weight Loss Center, 206 women 48 male respondents. Mean age not given.	Clients who completed a commercial weight loss program were randomly sampled from 35 centers across U.S. Tracked by mail-survey one year after program completed	People who "reach personally meaningful weight loss goals" are more likely to maintain weight losses. It is theorized that this achievement allows for an increased sense of self-efficacy which promotes continued success
Key Modifiable Factors in Weight Maintenance: Fat Intake, Exercise, and Weight Cycling	Haus, G., Hoerr, S.L., Mavis, B. & Robinson, J. (1994); ******** Regainers are defined as	Participants classified as "Regainers" are noted to be more likely to "weight cycle" or gain and lose weight	29 Participants 15 women, 14 men. All had participated in a 6 month worksite weight loss program. Mean	Participants of a worksite weight control program were followed for 42 months -6, 24, 30, 42 months post	Weight gain in this study is associated with a high fat intake; also noted that as number of minutes spent

Table 1. Summary of Obesity Relapse Literature Review

	T	T			
Psychological	those whose weight is greater than 5% of their posttreatment weight at 6 months follow- up. Foreyt, J.P.,	than "Maintainers", they also reported significantly earlier age of overweight onset. Obese men and	age 49 years, age range was 26 to 68 years.	weight control program.  Participants	in activity increased, there was a smaller increase in body weight
Correlates of Weight Fluctuation	Brunner, R. L., Goodrick, G. K., Cutter, G, Brownell, K.D., St. Jeor, S.T. (1995); ************ Relapse per se not the study focus.	women are more likely to weight cycle or fluctuate than normal weight. Fluctuators are more likely to be weight gainers than weight maintainers. Fluctuation was associated with negative psychological attributes lower self- efficacy, higher stress levels.	participants, normal weight, and obese; equal number of males and females. Mean age 44 years, age range 20- 60+ years.	answered 5 psychological questionnaires at initial assessment and one year later. Body weight also assessed at these times.	severe dieters are less likely to maintain body weight loss.
A Descriptive Study of Individuals Successful at Long-Term Maintenance of Substantial Weight Loss	Klem, M., Wing, R.R., McGuire M., Seagle, H., Hill, J.O., (1997); ********** Weight loss maintenance rather than relapse is the study focus. Maintenance is defined as having lost ∃ 13.6 kg (30 lbs.) and maintaining this loss for ∃ 1 year	Characteristics of weight loss maintainers enrolled in the National Weight Control Registry (NWCR) are identified, key characteristics noted: Members are highly physically active; 55% attended formal weight control programs; positive and negative "life triggering events" influenced weight loss and maintenance	Total sample N=784; 629 women and 155 men are currently enrolled in the NWCR. Mean age 45.29∀11.77.	Registry subjects completed a questionnaire which asked questions about demographics, weight history, weight loss methods, weight maintenance methods, and the effect of weight loss maintenance on their lives.	Negative emotional events "triggered" weight loss and maintenance in a sizable number of female participants.

Table 1. Summary of Obesity Relapse Literature Review

Personality and	Poston, W.S.,	Personality	102 obese	Patients who	The KSP was
the Prediction	Ericsson, M.,	traits measured	patients with a	are participants	not predictive
of Weight loss	Jurgen, L.,	by the	mean BMI of	of an 8-week	of personality
and Relapse in	Nilsson, T.,	Karolinska	38.6∀5.6; 80	cognitive	trait
the Treatment	Goodrick, G.,	Scales of	women with	behavioral	differences
of Obesity.	Foreyt, J.P.,	Personality	mean age of	weight control	between
	(1999);	(KSP) failed to	42.7∀10.7 S.D.	program are	relapsers and
	*****	predict weight	years and 22	given the KSP	maintainers.
	Subjects were	loss or 12-	males with	test (a self	
	classified as	month relapse	mean age	report	
	relapsers if	status	43.6∀12.5 S.D.	personality	
	they gained		years	questionnaire)	
	any weight			at the	
	during the 12-			beginning of	
	month follow-			the weight	
	up period.			control	
				program.	

### RELAPSE MODELS: COGNITIVE BEHAVIORAL AND BOUNDARY MODELS

Cognitive Behavioral Model. Some of the available literature on obesity relapse has focused on addictions and the similarities between dieting and addictive problems.

Marlatt and Gordon (1985) proposed that the behavioral and thought processes preceding and following a dietary relapse may be similar to those processes involved in drug or other addictive relapses (Grillo, Shiffman & Wing, 1993). They conceptualize relapse in their Cognitive Behavioral Model as a process which occurs after an individual has set up her own list of rules about acceptable dieting behavior (Marlatt & Gordon, 1985;

Brownell et al., 1986). In their model, relapse is proposed to occur when the individual has maintained some control over the addictive substance, subsequently encounters a high risk situation and does not have effective coping skills to deal with the situation.

These researchers hypothesize that, due to a lack of skills or a lack of confidence about abilities, the dieter is unable to adhere to food restriction rules and consequently overeats.

Once this behavior occurs, the relapse-prone individual tends to feel a decreased sense of

self-efficacy and negatively labels the dietary lapse as a violation of self-imposed rules. This process, known as the abstinence violation effect, often leads to total discarding of self-regulation which results in relapse to overeating or other addictive substance abuse (Brownell et al., 1986).

Boundary Model. The concept of an abstinence violation effect, or a "what the hell" mindset in dieters who are otherwise restrained in eating habits, was also explored by Herman and Polivy (1984). They used milkshakes and ice cream to test the eating patterns of dieters and nondieters. In their studies, participants who had consumed a set preload of milkshake were asked to rate the taste of three different flavors of ice cream. Herman and Polivy (1984) observed that the non-dieters naturally regulated their intake and ate less ice cream as the preloads of milkshake increased. However, dieters did not and were more likely to eat greater amounts of ice cream with increasing amounts of preload.

The Boundary Model of normal eating and restrained eating patterns was based on these milkshake findings. Herman and Polivy (1984) theorized that the normal eater was more likely to eat in response to hunger and stopped when satiated. On the other hand, the dieter or restrained eater tended to be hungrier before she began eating and was not as quickly satiated as the normal eater. In an effort to control this heightened hunger level and to restrict intake, dieters/restrained eaters tend to set an artificial limit or boundary on how much food is permissible. These intake restrictions tend to ignore the body's hunger level and as a result, are potential traps for the dieter. As also seen in the Cognitive Behavior Model, once the dieter breaks these artificial restrictions, he or she is more likely to lose control and overeat (Polivy, 1996; Berg, 1996; Herman & Polivy, 1984).

## HIGH RISK CIRCUMSTANCES PRECIPITATING RELAPSE

Additional research exploring concepts related to both the Boundary Model and the Cognitive Behavioral Model was conducted by Rosenthal and Marx (1981). They attempted to analyze the "high risk" circumstances that precipitated relapse episodes for female dieters. Relapse episodes, as defined in Table 1, were basically determined by the dieter and were based on her perception of violating self-imposed rules governing food intake and weight.

In Rosenthal and Marx's questionnaire-based study, 86 female college students and staff participants were interviewed 60 to 75 days after participating in a nine-week behavioral weight control program. The program was conducted at a university in the Northwest; the name of the University was not disclosed. Unfortunately, specific characteristics about the weight control program were not included in this article. Details about the behavior modification curriculum, the exact diet and exercise prescriptions were omitted. Calorie levels were not mentioned, nor was there discussion by the authors of their reasons for selecting a single gender participant pool. This study was conducted with two samples of women who had been through the identical program. Sample one had 36 participants and sample two had 50 participants.

All of the study participants were interviewed after completion of the weight control program. Subjects in both samples were asked if they were more likely to have relapse eating episodes when they were alone or when they were with other people. Study subjects were also asked to identify the main reason for their uncontrolled eating. Results from the first sample of 36 dieters did not provide convincing evidence that a relapse was

more likely to occur when a dieter was alone. Of the 36 dieters, 28 relapsed and of these relapsers, 48% reported experiencing a relapse episode when alone compared to 52% who noted that they relapsed when they were with other people. Results were different in sample two, which contained 43 subjects. In this sample, the majority of women (61%) reported being alone when they had a relapse episode. Eating alone was highlighted as a definite characteristic in this group of relapsers.

## HIGH RISK SITUATIONS FOR RELAPSING: EMOTIONS

Negative and positive emotional states emerged as the two most significant reasons for overeating in both of the samples in Rosenthal and Marx's (1981) study. When the dieters were alone negative emotions such as, depression, boredom and anxiety accounted for the majority of eating episodes in both groups. On the other hand, when the dieters were with other people, positive emotions accounted for the majority of relapse eating episodes. Respondents reported that being with other people "evoked pleasant feelings and loosened restraint" on eating (Rosenthal & Marx, 1981). Data collected from sample two also indicated that 63% of the relapse episodes occurred after 5:00 PM and that the majority of these episodes (65%) took place at home or in a restaurant.

Rosenthal and Marx's research and the Cognitive Behavioral Model and the Boundary Model have contributed to our knowledge of relapse by providing a clearer understanding of 'out of control eating' and the possible thoughts and actions associated with high risk situations. However, their conceptualizations are not definitive. Referring to the Cognitive Behavioral Model, Brownell and colleagues (1986) noted that, although it does

enable us to see that there may be a number of different factors precipitating high risk relapse situations, this single model cannot account for other physical or environmental factors that may be involved in a relapse. This point is demonstrated in Rosenthal's and Marx's (1981) results, which show that relapse can also occur in response to pleasant social situations and is not exclusively evoked by negative "high risk" scenarios.

Recognizing the need to learn more about high risk situations, as well as to conduct prospective research on the course of relapse in overweight people, Schlundt and colleagues (1989) attempted to identify situations that precipitated dietary slips in overweight study participants. Thirty-five individuals, (30 female and 5 male) who were at least 20% above ideal body weight participated in this study. Participants kept a continuous record of their eating behaviors during their ten-week enrollment in a behavioral weight control program at Vanderbilt University. All subjects recorded standard food diary information, including date, time, eating location, people present, hunger rating and caloric intake. In addition, they also recorded their emotional state before eating, whether the meal was planned or unplanned and if overeating took place. Further details on the behavioral weight control format, calorie levels or specific diet plan information was not given in this research article. It was only noted that the subjects followed the Rotation Diet (Katahn, 1986). The article did note that dietary slips were calculated based on the operational definition that a 'slip' was an unplanned eating episode which violated the individual's self-determined dieting rules (Schlundt et al., 1989).

In Schlundt's study (1989) data collected from food diaries after ten weeks on the Rotation Diet showed that negative emotions, positive social interactions and

physiological cravings emerged as the three basic high risk categories preceding dietary slips. Positive social interactions were shown to be more likely to precipitate overeating when the following variables were present: being with family or friends, eating at a restaurant or social event, eating lunch, dinner or a snack and being in a positive mood. All of these individual factors were also found to be additive in power, that is, the more factors present, the greater the chance that the individual would slip and overeat.

Negative emotions most likely to combine to influence a slip included being alone, usually at home or in the car and being in a neutral or negative mood. Neutral or negative mood was not defined in this study. Finally, these results indicated that hunger combines with either positive social situations or negative emotions and exacerbates overeating (Schlundt et al., 1989). No attempt was made in this study to correlate caloric intake levels with unplanned eating episodes.

Emotion-related eating has also been found to be characteristic of relapsers in other studies. Marston and Criss (1984) noted that dieters who relapsed were more likely to engage in emotional eating when compared to dieters who maintained their body weight loss. With the goal of attempting to predict relapse, Marston and Criss (1984) tracked 47 formerly overweight people by mail questionnaire for one year after they successfully lost weight. Volunteers for this tracking project were recruited through ads placed in newspapers in the Bay Area of California. Nine men and 38 women, in the age range of 23 to 74 years, with an average age of 37, participated in this study. All participants responded to an initial questionnaire and to follow-up questionnaires every three to four months for a year following weight loss. The first questionnaire was divided into five parts and contained 12 questions on weight history and weight loss efforts, 27 questions

on weight maintenance experiences, a five-item mood scale, 17 questions pertaining to life events and stress and the remaining questions were devoted to perceived support by a spouse or significant other. This final questionnaire section also included a marital conflict scale for married participants.

After 12 to 24 months of follow-up, 58% of the 47 participants were classified as weight loss "maintainers" and 42% as "relapsers." Relapse in this study was defined as regaining twenty percent or more of weight lost (Table 1). Comparisons between the questionnaire responses of maintainers and relapsers were examined. Sixty comparisons of initial questionnaire responses were made between the two groups. Exact scores comparing differences between the relapsers and maintainers were not reported in this article. All items were tested with a chi square statistic; chi-square statistics were reported for each of the variables. Using an alpha level of 0.05, eight of the comparisons were determined to be significant. The eight significant and discriminating differences between the maintainers and relapsers included the following: dieters who maintained their weights had initially lost more than relapsers, took more time to reach goal, were more likely to reach goal on previous occasions, had more overweight spouses, reported fewer sleep disturbances and were less likely to be emotional eaters. This article did not provide information of whether emotional eating was in response to negative or positive emotions.

A questionnaire study conducted by Kayman and colleagues (1990), involving female recruits from the Kaiser Permanente Health Maintenance Organization, also showed that emotions impacted eating, or that "negative life events" particularly precipitated relapsing. The study included only female HMO members; 44 (41%) of the recruits were

classified as relapsers (see Table 1), 30 (28%) were classified as weight loss maintainers (maintained loss for at least two years), and also included was a control group of 34 (31%) women who always stayed at an average weight. In response to the study question, which probed reasons for gaining weight, 77% of the relapsers reported that they had regained weight in response to a negative life event. While examples of these events were not specified, the researchers indicated that these events were significant enough in the individual's life to make it difficult for them to fix "special foods" or to exercise (Kayman et al., 1990). The content or calorie value of special foods was not indicated in the body of the research article. Special foods were simply noted to be diet foods. Details of the exact dieting regimen of the relapsers and maintainers were not mentioned in the body of the research article.

Contrary to these studies, Klem and colleagues (1997) reported that "life triggering events," which were not always positive, influenced successful weight loss and maintenance in the majority of the men and women enrolled in the National Weight Control Registry. This registry is the largest known study of successful weight loss maintainers. The registry includes 629 women and 155 men who have lost an average of 30 kg and maintained a required weight loss of 13.6 kg for five years. According to the results of Klem's questionnaire study (1997), 77% of 598 registrants reported that life events or triggers preceded weight loss. Women and men were equally likely to report these events. Thirty—two percent of the sample (n=598), reported that a medical "trigger" (e.g., sleep apnea, varicose veins, low back pain) or an emotional trigger (husband left marriage because of subject's body weight), preceded weight loss. Men were more likely to attribute weight loss to a medical trigger (47.2% versus 28.8% in women.) Women

were more likely to attribute weight loss to an emotional event (34.7% versus 20.3% in men).

## ADDITIONAL PSYHOLOGICAL CORRELATES OF WEIGHT FLUCTUATION

Another investigation related to the subject of emotions and relapse focused on the characteristics of individuals who experienced weight fluctuation. Foreyt and colleagues (1995) attempted to determine the psychological correlates of weight fluctuation in a study sample of normal weight and obese subjects. Weight fluctuation was defined in this article as frequently losing and regaining weight. This study was undertaken to test four hypotheses that were determined to be relative to weight fluctuation regardless of weight status. The four hypotheses tested concerned whether those individuals who fluctuated in weight would exhibit: a) less well-being, b) more depression, c) less eating self-efficacy, and d) more life stress than people who did not fluctuate.

The study sample consisted of 497 subjects. There were approximately 50 subjects in each age and sex category with the age categories spanning five decades from age 20 to 60+ years. Normal weight and obese participants were included in each sex and age category. Obesity was defined in this study as being 120% of ideal body weight as stated in the 1959 Metropolitan Life Insurance Company Height and Weight Tables. The mean age of the subjects was 44 years, the mean weight for the obese subjects was 137.3% IBW and the mean weight for normal subjects was 104.5% IBW.

Five psychological questionnaires were administered to the study population at the time of the initial assessment and one-year later. These questionnaires included: the Brownell Weight Cycling Questionnaire, the General Well-Being Schedule, the Center

for Epidemiological Studies Depression Scale, the Eating Self-Efficacy Scale and the Schedule of Recent Experience (measurement of stressful life events). In addition to these measures, body weight was assessed at the beginning of the study and one-year later.

Well-being and depression were assessed through the use of the General Well-Being Scale, a questionnaire developed by the National Center for Health Statistics. Questions were targeted at determining the respondent's nervousness, depression, stress, self-control, body complaints, thinking, fatigue and mental health history. Well-being was based on the absence of symptoms. Depression was also assessed through use of the Center for Epidemiological Studies-Depression Scale. Questions were directed at how the participant felt the week prior to the study. A single score was given to the respondents in this 20-item questionnaire; a score higher than 16 indicated significant depression. Eating self-efficacy, or the ability to control overeating in high-risk situations, was measured by the Eating Self-Efficacy Scale, a self-report questionnaire.

The results provided evidence for the original hypotheses. It was found that independent of body weight, non-fluctuators scored higher on the General Well-Being scale than fluctuators. Greater self-efficacy scores and lower stress levels were also reported in the group that did not fluctuate in weight.

At the one year assessment, the following body weight classifications were used to report results, subjects were classified as "maintainers" if they stayed within five pounds of their initial weight, "gainers" if they were five pounds heavier and "losers" if they lost five pounds after one year (Foreyt, et al., 1995). Subjects were further classified as

fluctuators or non-fluctuators based on historical self-report after one year postassessment.

The study results indicated that across all weight change categories of maintenance, gain and loss, obese women and men were more likely to fluctuate than normal weight men and women. Consequently, fluctuators were significantly less likely to be weight maintainers and more likely to be weight gainers than those individuals who did not fluctuate. More of the subjects who reported themselves to be nondieters were noted to maintain weight (73.9% were classified as maintainers in the nondiet group), when compared to those who reported that they were mild dieters (61.8% classified as maintainers in the mild diet group) or severe dieters (only 49% were classified as maintainers in the severe diet group). Fluctuation in weight was also noted to be strongly associated with negative psychological attributes in both normal and obese weight individuals.

Poston and colleagues (1999) recently studied personality traits and their impact on weight loss and maintenance. These researchers used the Karolinska Scale of Personality to measure stable personality traits and to predict if there was an association between these traits and weight loss and maintenance in obese patients.

The Karolinska Scale of Personality (KSP) is a self-report personality questionnaire that is designed to measure 15 aspects of personality: psychic anxiety, somatic anxiety, muscular tension, impulsiveness, monotony avoidance, socialization, social desirability, psychastenia, detachment, indirect aggression, verbal aggression, irritability, suspicion, guilt, and inhibition of aggression. None of these measures was defined or explained any further in the body of the research article.

The KSP was administered to 102 obese subjects prior to an eight-week cognitive-behavioral weight control program. Eighty females with a mean age of  $42.7 \pm 10.7$  SD years and 22 males with a mean age of  $43.6 \pm 12.5$  SD years participated. A BMI of 30 or greater was required for participation in this study. The mean baseline weight for the group was  $109.2 \pm 18.5$  kg with a mean BMI of  $38.6 \pm 5.6$ . Separate weights for males and females were not reported.

The weight control program consisted of a prescribed 1000 calorie diet, physical training and cognitive-behavioral techniques for weight management. The subjects were weighed at the end of treatment and again at the three and twelve-month follow-up. Subjects were classified as relapsers if they gained weight at the twelve-month follow-up assessment. Subjects were classified as nonrelapsers if they maintained their weight loss or continued to lose weight at the twelve-month follow-up.

The results showed that at the twelve-month follow-up, 52 of the subjects were classified as relapsers and 50 were classified as nonrelapsers. However, at this twelve-month follow-up period, the KSP score and its measure of personality traits failed to be predictive of weight loss or weight maintenance in study subjects.

### SOCIAL SUPPORT

A difference was observed by Kayman et al. (1990) between weight loss maintainers and relapsers in the practice of seeking social support. When comparing women who maintained their weight loss to those who regained weight, Kayman (1990) found that when dealing with life problems, 70% of maintainers (n=30) were more likely to seek

social support from family and friends. Fewer relapsers (38%, n=44) used available social support.

Social support, consisting of continued contact with a weight control therapist after the conclusion of formal treatment, has also been found to be a critical factor in keeping weight off by Baum et al. (1991). Baum and associates (1991) compared the effectiveness of continued weight control therapist contact versus minimal contact after the conclusion of a twelve-week weight control program. Thirty-two subjects (31 females and 1 male) who had previously completed a twelve-week cognitive behavioral treatment and aerobic exercise program were matched on the basis of weight loss and assigned to one of the two maintenance conditions. All subjects were assessed for weight status at three, six, and twelve months following the completion of the initial weight control program.

The initial twelve week program was conducted by psychology doctoral students at the University of South Florida and was based on the LEARN Program for Weight Control written by Brownell (1987). During the course of the first twelve weeks, participants attended weekly sessions that were three hours in duration. The first forty-five minutes encompassed a didactic presentation which focused on key topics in LEARN including, lifestyle, exercise, attitude, relationship, and nutrition. The remainder of the weekly sessions was devoted to group discussions, food and record checking and forty-five minutes of exercise. Information on caloric intake was not given in the body of the research article. Further details about the nutritional adequacy of the calorie limited diets or about program content were also excluded.

After the conclusion of the twelve-week program, some of the participants were assigned to receive continued therapist support. This therapist supported maintenance condition was a multicomponent treatment program that lasted for three months and consisted of four relapse prevention booster sessions, mail and phone contact and feedback sessions. The term "booster" is commonly used in weight control programs to denote weight control information that was previously taught and is then repeated, for example, preplanning of meals to prevent overeating and relapsing. Basic components of the educational booster sessions are given in the information that follows.

Extra time and support was provided by psychology doctoral students in the therapist supported treatment. These student therapists conducted the booster sessions and provided all of the mail and phone contact. The booster sessions consisted of: helping participants to identify situations that were high risk for relapse, training participants in problem solving skills, assisting in role playing and teaching cognitive skill development to deal with "setbacks" (Baum et al, 1991). Subjects stayed in weekly contact with therapists by mail and therapists contacted subjects by phone when booster sessions were not scheduled. Therapists also provided written feedback about weight changes following the assessment sessions at three, six and twelve months post-initial weight control treatment. Subjects in the minimal support contact group only received mail and written contact from the therapists during the three months of maintenance and the follow-up assessment periods. They were not contacted by phone nor did they receive the four relapse prevention booster sessions that were provided to the other treatment group.

The results of the above comparison study on therapist support indicated that the participants in the therapist support condition (n=15) continued to lose weight for six months following the initial weight control treatment. However, the participants in the minimal support group (n=17) regained weight during the six months following treatment. At twelve months post-treatment, a greater percentage of those in the therapist supported group continued to lose weight when compared to the minimal support group (13% versus 0%) and also maintained their weight losses (46.6% versus 20%).

The importance of extended therapist contact in weight loss maintenance was also documented in studies conducted by Perri (1993,1984,1987). Perri et al. (1993) theorized that continued therapist contact might assist some overweight people in remaining vigilant about exercise and eating habits. Perri (1995) postulated that clients who remain in contact with psychological therapists also tend to maintain weight loss because they benefit from continued problem solving strategies, as well as positive motivation to continue with a long "battle with obesity."

### FORMAL DIET PROGRAMS

Beyond the psychosocial differences pointed out in this review, other behavioral distinctions have been reported in the research comparing relapsers to weight loss maintainers. Marston and Criss' work (1984) noted that people who maintained their weight losses were less likely to join formal diet programs. Their sample, consisted of 47 formally overweight subjects (38 women and 9 men); 40% of this total sample lost their weight in formal diet programs, the majority attended Weight Watchers and one subject attended a physician run program. However, 60% of their sample dieted independently

and did not join formal programs. Schacter (1982) and Kayman et al. (1990) corroborated this finding. Both of these researchers noted that people who diet on their own fared better than those who sought professional treatment. Kayman (1990) found that women who maintained their weight losses for two years or more were more likely to devise a personal diet plan that fit their lifestyle. These maintainers usually consumed a low fat, reduced sugar intake and combined this regimen with increased exercise. Exact information on fat gram intake or percentage of calories as fat was not provided. In addition to a more prudent intake, when maintainers were compared to relapsers, maintainers were also found to be less likely to restrict favorite foods. Formal dieting with a restrictive eating regimen was characteristic of the practices employed by relapsers. Relapsers were more likely to use appetite suppressants and fasting or restrictive formula diets.

This difference between formal and self-designed programs has not been corroborated in larger and more recent study samples. Information reported from the National Weight Control Registry (Klem et al., 1997) on individuals who have been successful with long-term weight loss maintenance is not reflective of the previously cited research on formal program attendance. In this registry of 629 women and 155 men who have lost an average of 30 kg and maintained a required minimum weight loss of 13.6 kg for five years, 55% attended formal programs and 45% dieted on their own.

# **GOAL WEIGHT**

Reaching goal weight has been found to be an additional behavioral distinction between maintainers and relapsers. Marston and Criss (1984) and Wolfe (1992) noted that reaching goal weight was a key factor in weight maintenance. Dieters who reached a self-determined goal were noted in Wolfe's (1992) study to be more likely to maintain their weight loss at least one year after treatment.

In a study of Jenny Craig participants, Wolfe (1992) investigated the possibility that poor weight loss maintenance may be attributable to the failure to achieve goal weight. Through use of a mail survey, Wolfe (1992) studied a group of 254 clients who had completed the Jenny Craig program. Women represented the majority in the sample, with 206 women and 48 males responding. The author noted that the significantly larger number of female participants was consistent with the "typical enrollment patterns of the [Jenny Craig] program" (Wolfe, 1992).

Only those individuals who reached goal weight and had perceived themselves as having successfully completed a weight control program were included. The subjects determined goal weights with guidance from a computer program, which referenced the 1959 Metropolitan Life height and weight charts. The average weight loss for the subjects immediately after treatment completion was 33.83 pounds (SD=16.7).

Results indicated that, based on self-determined goals and self-reported data, 82% of the study participants stayed within 10% of their goal weights one year after treatment. Average weight loss in a one year follow-up was 27.47 pounds (SD=18.28). When the stricter criterion of the 1959 Metropolitan Life charts was used to determine weight loss maintenance, 57.2% of the sample maintained their losses.

These results have led the author to suggest that relapse may be the "artifact of premature treatment completion," or attributable to leaving a weight control program before reaching a set goal (Wolfe, 1992). Based on these findings Wolfe (1992) also proposes that the individual achievement of losing to a personally meaningful body weight may positively impact weight loss success after treatment completion.

Ultimately, overweight or obese people who are encouraged to finish a weight control program with a personally significant weight loss may be more successful in preventing relapse.

## EXERCISE/PHYSICAL ACTIVITY

Exercise or physical activity has emerged as another factor in the lifestyle differences between those individuals who maintain their weight losses and those who regain. This difference was revealed by Marston and Criss (1984) and further corroborated by Kayman et al., (1990). A much smaller percentage of relapsers were noted by Kayman (1990) to engage in exercise to lose or maintain weight. Only 34% of relapsers exercised regularly when compared with 90% of the weight loss maintainers and 82% of the normal weight control participants. Hauss and associates (1994), however, did not see this difference in their study. According to these researchers, no differences were found in the duration of physical activity engaged in by maintainers versus regainers.

While the practice of engaging in routine exercise or physical activity seems to be very promising for weight loss maintenance, there are few studies that point conclusively to the long-term effects (Miller, 1999). This is due to the fact that follow-up data is scanty (Miller 1999). Nevertheless in a meta-analysis of 25 years of exercise research, the

positive effects of exercise on weight loss maintenance were noted (Miller, 1997).

Miller's research (1997) along with data from the National Weight Control registry of successful weight loss maintainers indicated that exercise may be critical to maintenance (Miller, 1999). The documentation on the exercise habits of the large sample (n= 784) of successful weight loss maintainers enrolled in the National Weight Control Registry (Klemm, 1997) was noteworthy because exercise was an integral part of weight maintenance for a large percentage of the registry. Seventy-two percent of the registry (71% of women, n=629; 79% of men, n=155) met or exceeded the exercise recommendations put forth by the American College of Sports Medicine (Klem et al., 1997). These recommendations call for a weekly minimum physical activity expenditure of 1000 calories. In addition, over 50% of the registry exercised to meet the American College of Sports Medicine's optimal exercise goal of a 2000-calorie weekly physical activity expenditure.

## **CALORIC RESTRICTION**

Constant vigilance about food, as well as self-imposed caloric restriction, is part of life for many dieters. As demonstrated in research cited earlier by Herman and Polivy (1984), caloric restriction seems to precipitate uncontrolled eating in otherwise controlled dieters. A more recent review of the literature on food restriction showed that starvation and self-imposed dieting often led to bingeing and food preoccupation (Polivy, 1996). The intensity of this response was initially reported in the seminal research carried out by Keys et al. (1950). Keys and colleagues examined the impact of semi-starvation on normal weight conscientious objectors during World War II. Although this research does

not specifically study the effects of caloric restriction on obese individuals, it still has tremendous implications for obese relapsers.

The goal of this series of investigations, known as the Minnesota Experiments, was to study human starvation. These experiments were undertaken in an effort to better plan relief measures for war victims and victims of famine. Keys and fellow researchers documented the physiological and psychological problems encountered by 32 normal weight men during six months of semi-starvation and at least three months of rehabilitation. The conditions of semi-starvation are briefly reviewed in the following paragraph.

For a six-month period, Keys and colleagues experimentally induced semi-starvation in their subjects. An average weight loss of 24 percent was induced in each of the study participants. In order to produce this level of weight loss, individual caloric adjustments were made for each of the study participants. The average daily intake during this six-month period of semi-starvation was 1570 calories, which was comprised of 50 grams of protein and 30 grams of fat. Subjects received two meals a day, one meal at 8:30AM and the second meal at 5:00PM. Only three rotating menus were repeated during the course of the six-month semi-starvation period. Whole wheat bread, potatoes, cereal and large amounts of turnips and cabbage constituted the major components of the diet. Meats and dairy products were noted to comprise only a small percentage of the daily calories. Beyond the specification that meat and dairy comprised a small percentage of the diet, there was no further information given in the body of the research about the exact number of ounces of meat or cheese. It was simply noted that the amounts were sparse and that

this diet was specifically designed to mimic the diets consumed in famine stricken areas of Europe before and after the Second World War.

Excessive Intake as an Aftermath of Semi-starvation. After being subjected to six months of semi-starvation, all 32 of the men were rehabilitated or re-fed and followed for a period of 33 weeks. Physiological and psychological information was collected and reported. Most of the psychological information regarding the impact of semi-starvation was acquired through a self-report questionnaire. The results from the questionnaire indicated that during the twelfth week of rehabilitation, the period when the men were restored to a basal calorie level or a basal level plus 400, 800 or 1200 calories, the continued desire for more food was found to be one of the long-lasting effects of semi-starvation. Even those men on the highest calorie level had a persistent desire to eat. Not until week 33 of rehabilitation, did the self-rating scores indicate that this desire subsided, and that the men eventually returned to normal eating an appetite patterns. Despite this eventual return to normal eating habits, these study results have significance for the obese relapser because they point to the persistence of food cravings even when adequate calories are being consumed.

One possibility suggested by these findings is that there may be a critical period for relapse risk for the modern day dieter. Dieters who moderately or severely restrict solid food calories, or those who use very low calorie liquid fasts for extended periods of time, may also experience these food cravings long after the set dieting period. 'Cravings' or the continued desire for more food even when hunger has been satisfied may be driving the relapse. More research is needed in this area.

Besides the previously listed side effects, Keys et al. (1950) reported other physical and psychological consequences attendant to semi-starvation. At week 13 of rehabilitation, when all of the subjects were released from dietary restrictions, the researchers noted that the subjects ate more food than their bodies could handle and several suffered from headaches, nausea, gastrointestinal distress and sleeplessness. Based on the written reports collected from the men who participated in this study, Keys and colleagues (1950) indicated that some of the men had unfounded fears that food would not be available to them or would be confiscated before they had a chance to eat. Accordingly, the researchers surmised that these irrational fears probably caused many to eat excessive amounts, more than they could really tolerate at one sitting. A preoccupation with food, as well as excessive intake persisted for many of the men. Even at 20 weeks or five months after the semi-starvation diet was completed, 11 out of the 27 subjects noted that food was an important concern and a central to their interests. This interest and extreme attentiveness to food was much greater than before the experiment. Some of the men became interested in cooking and baking, one reported enjoying grocery shopping and one of the subjects based his job selection on whether he could easily obtain food. Unfortunately, additional personal attributions for these behavioral patterns were not explored any further by Keys. It took up until week 33 of rehabilitation of the men's attitudes about food to return to normal; at week 33, the majority of those interviewed (10 out of 14) reported that they were eating normal amounts of food during meals.

Exploring the phenomenon of food craving following dietary restriction is of particular relevance to this dissertation. To date little research has been conducted to

examine the possibility that uncontrollable eating in obese people coming off of restricted diets may be attributable to a host of factors. Restriction, whether moderate or stringent, may precipitate unexplored behaviors and eating patterns. Knowledge of such behaviors may prove to be helpful to the development of effective obesity treatment.

## CURRENT RECOMMENDATIONS FOR OBESITY TREATMENT

The NHLBI, National, Heart, Lung and Blood Institute (NHLBI) of the National **Institutes of Health (NIH) Obesity Guidelines.** NIH recently published overweight and obesity treatment guidelines (NHLBI, 1998). These guidelines are noted to be evidence based, that is, based on a review of the most effective examples of obesity research conducted from 1980 to 1997. As a result of this evidence-based review, treatment recommendations were proposed and part of a two-step process that includes assessment and treatment management. These clinical guidelines are directed towards primary care physicians versus a multidisciplinary team of exercise physiologist, dietitian/nutritionist and psychologist. NIH recommended the following assessment and treatment steps. **NIH - Assessment**. The practitioner is advised to make a determination of the patient's degree of overweight and risk status. A number of physiological factors are recommended for inclusion in this assessment: body mass index, waist circumference, risk status with regard to established cardiovascular disease and other obesity associated diseases, such as diabetes mellitus, osteoarthritis, and gynecological abnormalities. Assessment of patient motivation is the final part of this recommended assessment.

Assessment of patient motivation is the only social or psychological factor that is considered part of this evaluation. Included in this assessment is the determination of the

following: the patients reasons for wanting to lose weight; a previous history of successful and unsuccessful weight loss; whether a support system exists; attitude towards physical activity; ability to engage in physical activity; understanding of the physical risks of obesity; time availability for weight loss; financial considerations (NHLBI, 1998). As part of this assessment, the practitioner is encouraged to help increase a patient's motivation to lose weight by describing the risks of untreated obesity and the strategies to assist with weight loss.

NIH - Treatment. With regard to the treatment of overweight and obesity, NIH proposed the following goals: (1) at a minimum, prevention of further weight gain; (2) reduction of body weight; and (3) maintenance of a lower body weight over time. The NIH panel also encouraged collaboration on the part of clinician and patient in devising weight loss goals. If maintenance is not chosen, the panel recommended an initial reduction of 10% of body weight at a rate of one to two pounds weight loss per week for the obese patient. This would entail a caloric deficit of 500 to 1000 calories per day.

Specific strategies that are recommended for weight loss by the panel include: diet therapy, physical activity, behavior therapy, combined therapy, pharmacotherapy, and weight loss surgery. Individual treatment planning which considers the diversity of the patient population is encouraged.

NIH recommends that the diet prescription take into account the overweight status of the patient, nonetheless a generalized recommendation of 1,000 to a 1,200-calorie diet is advised for women and a 1,200 to a 1,500-calorie diet for men. They also advise a low fat diet with no more than 30% of daily calories as dietary fat. Further reductions in fat are recommended if the patient has cardiovascular disease.

The NIH panel recognized physical activity as an important component of weight loss therapy. It is recommended that physical activity be initiated slowly with a gradual increase in intensity. Three days a week of walking or swimming at a slow pace for 30 minutes is initially encouraged. Patients are then advised to build up to 45 minutes of exercise on a five-day a week basis. Walking is advocated because of its "safety and accessibility" (NHLBI, 1998).

Behavioral therapy which incorporates the use of stimulus control, the recording of eating and exercise habits, stress management, problem solving, contingency management, cognitive restructuring and social support are advocated (NHLBI, 1998). There is no specification of exactly which staff member in this medical model should conduct the behavioral therapy component.

Combined therapy which incorporates a low calorie diet, behavior therapy and physical activity is recommended by the panel as the most effective means of weight loss and weight loss maintenance. This combination of strategies is recommended for at least a six-month period before the physician considers the use of pharmacotherapy.

Phamacotherapy, or the use of drugs to control appetite and weight gain, is recommended as an adjunct to diet therapy and physical activity for some patients. Those patients who have a BMI of 30 or greater and no health risks, and those with a BMI of 27 to 29.9 who have risk factors, such as hypertension, coronary heart disease, type 2 diabetes and sleep apnea, are appropriate candidates for this therapy. Sibutramine is specifically recommended and physicians are cautioned to monitor for efficacy and safety.

The final treatment strategy that is advocated by the panel is weight loss surgery. It is recommended only for the severely obese with BMIs of greater than or equal to 40, as well as those with BMIs of greater than or equal to 35 with comorbid physical conditions. Gastrointestinal surgery, which entails gastric restriction, or gastric bypass surgery are the two interventions that are presented as options for the patient who is motivated and is not at risk for these surgical procedures.

Weight Management: Position of the American Dietetic Association (ADA). The NIH guidelines, which were also presented in the American Dietetic Association Journal in 1998, were not reflective of an integrated and multidisciplinary approach for weight management previously endorsed by the ADA. The American Dietetic Association espoused more of a multidisciplinary approach in its position paper on weight management in 1997. While the position paper was directed towards dietitians, it also encouraged a team approach with the collaborative skills of physicians, psychotherapists and exercise physiologists. Furthermore, the position paper acknowledged the need to refocus the goal of obesity treatment from weight loss alone to "weight management" or the achievement of "the best weight possible in the context of overall health" (ADA, 1997). Reduced disease risk and improvements in overall energy and well being were proposed as paramount goals of this management.

The concept of well being is just one treatment goal difference between NIH and ADA. In addition to the promotion of well-being, the ADA promoted weight control programs, which incorporated lifestyle modifications and the following: (1) a gradual change to a healthful eating style with increased intake of whole grains, fruits, and vegetables; (2) a nonrestrictive approach to eating based on internal regulation of food

(hunger and satiety); and (3) gradual increase to at least 30 minutes of enjoyable physical activity each day (ADA, 1997). Restriction and deprivation are noted to be directly opposed to the goals set forth by the ADA. However, NIH still encouraged restrictive caloric intake for weight loss in its guidelines.

The ADA did not strictly endorse traditional treatments for weight control, including very low calorie diets, behavior therapy for fewer than 40 weeks and pharmocotherapy. These approaches were noted to be ineffective at producing long-term weight loss results and were not advocated. However, very low calorie diets, pharmacotherapy and surgery were not ruled out and recommended when appropriate as short-term adjunctive therapies for extreme obesity. Guidelines on Assessment, Methods of Treatment, Consent, and Maintenance are briefly included and presented in the following section.

ADA - Assessment. It is recommended that the assessment be carried out by a qualified dietetics professional or other health care professionals prior to setting weight and treatment goals. The term "other health care professional" is not defined in this paper.

Determination of physiological contributors and environmental causes of obesity are proposed to be key to this assessment. A medical examination by a physician is also recommended so that risks, complications and organic causes of obesity can be assessed. A strong focus is placed on interviewing by the dietitian to determine the behavioral, psychological and nutritional factors that may be contributing to obesity. Assessment and referral for eating and mood disorders is encouraged. Finally, a weight history and assessment of the patient's readiness to change are recommended as part of this process. If there is evidence of binge eating, weight cycling or other psychological problems, it is

suggested that the patient be referred to a psychotherapist. Specific psychological assessment interview tools are not recommended for the dietitian's use.

**ADA - Consent.** Before treatment begins, the patient is asked to commit to a lifetime of making positive lifestyle changes that include eating, physical activity and the maintenance of a support system.

ADA - Methods: Behavioral Goals. It is recommended that the patient be assisted with adopting a healthy diet, which is balanced, low fat, high fiber and individually tailored. Calorie level prescriptions are not made; the ADA only recommends an energy level that does not exceed energy expenditure. Furthermore, it is advised that weight loss is gradual and maintained for at least six to twelve months. Thirty minutes of moderate activity are recommended each day.

**ADA - Methods: Psychological Goals.** It is advised that cognitive-behavioral methods be incorporated into the behavioral treatment. Health professionals are strongly encouraged to help patients achieve a more healthy attitude about food and to refocus their efforts on improving self-esteem and body image.

**ADA** – **Maintenance:** Follow-up for long-term maintenance is suggested. Patients who exercise regularly, use social support to maintain healthy eating and exercise habits, handle lapses as minor setbacks and view these lifestyle behavioral changes as permanent regimens are noted to be the most successful at sustaining weight loss for more than one year. Exact relapse prevention techniques for the dietitian to use are not given in the body of this position paper.

## **OBESITY TREATMENT: CONTROVERSY**

The American Dietetic Association (ADA) does not clearly state on its website or in its journal, which of these guidelines, NIH or the ADA position paper, it is sanctioning. Unfortunately, many dietitians/nutritionists who rely on the ADA trade journal and its website for educational updates may be confused and unsure of what is optimal treatment for the obese individual. Should the much broader and multidisciplinary approach of the position paper be accepted, should NIH guidelines be implemented, or are there more effective obesity and relapse treatment options that are not included in either of these guidelines? Some dietetics professionals are making their own decisions.

Despite the authority with which the federal guidelines and the position paper have been presented, there seems to be division amongst nutrition professionals about their practicality and effectiveness. Most of the controversy surrounds the NIH guidelines. While a few dietitians/nutritionists helped to write the NIH guidelines and have published articles on how to implement them (Van Horn et al., 1998), other dietitians criticize the guidelines and embrace a weight management approach which is similar to the ADA position paper. Others advocate a more extreme approach that includes the concept of size acceptance. According to critics of the NIH guidelines, the didactic and traditional approaches that are advocated by the guidelines constitute a setback in the area of obesity management (Ikeda, et al., 1999). These criticisms are based on the contention that NIH is promoting treatment modalities that have not been successful in the long-term. Critics like nutritionist Joann Ikeda at the University of California at Berkeley and her colleagues (1999), bolster their contentions by reporting that the large majority of people

who have lost weight in the formal treatment programs with strategies recommended by the NIH regain their weight within five to seven years.

Nutrition practitioners also pinpoint the NIH recommendation of a low calorie diet as a failing. The ineffectual nature of low calorie dieting and restrained eating practices is noted to be evidenced by dismal results--- a large proportion of the population already engages in these practices with results which are harmful and usually unsuccessful (Ikeda et al., 1999). NIH's continued focus on body weight, body fat and BMI versus overall fitness is also subject to criticism by these professionals and others. The goal of achieving health and fitness versus thinness at any cost is broached by ADA's position paper, but actively advocated by Ikeda (1999) and others (Berg, 1998; Parham, 1999; Gaesser & Kratina, 2000). These practitioners believe that it is time for the obesity treatment model to be revised.

Parham (1999) and Berg (1998) promote the concept of body size acceptance.

According to Parham, body size acceptance is not denial of the health risks of obesity but a treatment focus that takes emphasis away from extreme slenderness as a goal for obesity management. Instead, positive changes in health behaviors are stressed. Such changes, like the adoption of increased physical activity, are thought to be an outcome of the process of size and self-acceptance counseling. Obese individuals may be less likely to enter in negative patterns of behavior and to castigate themselves for not achieving an unrealistic weight goal, if they are taught to focus on health versus a skinny and unachievable weight. Parham (1999) posits that size acceptance may ultimately be the foundation for work towards modest weight loss and improvements in overall health.

Furthermore, she notes that weight gain is not associated with short-term gains in body satisfaction (Parham, 1999).

Many other nutritionists who know the struggles of the repeat dieter have also supported the need for a new approach to obesity treatment. Ellyn Satter (Babcock,1999), who is a registered dietician and psychotherapist, counsels many "dieting causalities." These "causalities" are characterized as people who have tried and repeatedly failed at dieting. According to Satter (Babcock, 1999) the only way for many of these overweight and obese clients to succeed at taking control of their weight is by focusing on healthy lifestyle changes versus weight loss.

# SUMMARY OF LITERATURE REVIEW

In summary, many critical factors are associated with relapse following a weight loss diet. Available literature links the occurrence of obesity relapse to factors, such as emotions, failure to reach goal weight, lack of social support, decreased physical activity and restricted intake. Although there is important research on obesity relapse that provides us with some of the fundamental elements associated with its occurrence, current research fails to provide a clear model or mechanism by which dieting relapse takes place. Until relapse is better understood, effective preventive measure cannot be defined. Current obesity treatment models seem to be reflective of our deficit in understanding relapse. Obesity treatment remains controversial and inadequate for many professionals and patients.

### **CHAPTER III**

#### METHODOLOGY

The purpose of this study was to find out more about the nature and substance of obesity relapse in women. Through a qualitative design, this study examined and integrated the in-depth experiences of eight women who relapsed. In-depth descriptions of relapse were provided through the inclusion of actual personal accounts or case studies. The case studies were analyzed for common themes and patterns that were contributory to obesity relapse. These cross case themes were presented in a conceptual framework; this format was chosen in order to permit a better understanding of the problem of relapse.

The qualitative paradigm was selected because it allowed for an inclusive study of relapse without confining the investigation to a predetermined set of responses or categories of analysis. Unlike Kayman's (1990) semi-qualitative design, this current study design does not restrict answers to any of the critical questions about attributions for relapse. A quantitative design was not chosen because this process would require the use of standardized methods and would limit the extensive and varied experiences of the respondents by forcing a fit into predetermined categories (Patton, 1990).

The qualitative design included the following components: (a) purposive sampling; (b) in-depth interviewing with the goal of obtaining exemplar events and detailed descriptions of relapse from women who have experienced relapse; (c) case study reporting to richly portray each of the credible 'stories'; and, (d) inductive analysis of the themes or common patterns that tie the individual experience of relapse together and help to construct a framework which allows for better understanding of the problem of relapse.

This study was approved by the University Institutional Review Board for Research Involving Human Subjects at Virginia Polytechnic Institute and State University. The IRB approval form is included in Appendix A.

# SAMPLING RECRUITMENT AND SELECTION

Significant efforts were made to recruit ten respondents. After thirteen months of recruitment and interviewing, from November 1998 to December 1999, eight rather than ten women were recruited and included in this project. The dissertation committee chairperson sanctioned the final number of respondents.

Recruitment was first implemented through IQ Health, a worksite wellness program and private weight control center at the University of Virginia. Appendix B contains a Letter to Potential Respondents and a letter of endorsement from the program manager, Rebecca Reeve, Ph.D. IQ Health staff referred five potential respondents, however, only three had lost and regained enough weight to be considered appropriate referrals. All three of the IQ Health referrals were first contacted by phone, only one agreed to be interviewed. The first referral was not receptive, the second referral indicated interest but stated that her husband was very ill and that she was could not take time to participate, and the third referral was extremely interested and participated.

Additional recruitment was implemented by advertising at the local Weight Watcher meeting site, advertising through the Wellness Center, which is a physician's office in Charlottesville and advertising at the local TOPS diet group. In addition to these efforts, the researcher attempted to solicit recruits through the head nurse practitioner at the Women's Center at the University of Virginia and lead staff members of the chronic

disease and nutrition departments of the Thomas Jefferson Health District. Recruitment through these sources did not prove to be fruitful. Instead, the remaining seven referrals were recruited by other professional colleagues (a nutritionist at University of Virginia and a psychotherapist in private practice), recruited by friends or approached and recruited by the researcher.

Within one to two days of referral, all of the potential interviewees were contacted by phone. All were told the purpose of the study and if they requested more information, they were sent the protocol (see Appendix C). Four preliminary questions were asked of all the referrals: their age, whether they relapsed and their current body weight and height. Relapse was defined as having previously lost and regained 25 pounds or more of body weight at one or more times throughout life. No restriction was placed on the time period for the relapse event.

This study also required that the respondents be obese at the time of the interview, or have a body weight which was 120% of ideal weight. The formula to calculate ideal body weight for women was based on the allowance of 100 pounds for five feet and five pounds for each additional inch above five feet.

Interview arrangements for all, except one interviewee, were made within one week of phone contact. Because of scheduling problems one recruit was interviewed approximately 1 month after contact.

### PURPOSIVE STUDY SAMPLE

A purposive study sample of 8 women, ages 31 to 57 was chosen. This sample was defined as purposive because the informants were chosen in an intentional manner. All of

the informants or respondents were women, in a middle age range, had experienced obesity relapse and were willing to share information about their experiences for an indepth study. Six of the respondents were Caucasian and two were African-American women. Five of the women were married, two were unmarried but living with their long-term boyfriends and one was single.

Women who were dieting at the time of the interview, but still met the criteria for relapse were included in this study. Although, the original proposal called for the selection of non-dieting recruits, it was discovered during the process of recruitment and interviewing that only those women who were in the process of losing weight were willing to talk about previous experiences of weight loss failure. This information was cited in many of the case studies (Chapter IV) in the section entitled, Why the Respondent Participated. All of the eight respondents included in this study were trying to lose weight. Three of the respondents chose not to use the word dieting to describe their weight loss efforts. Instead, they described the fact that they were focusing on achieving a lower body weight and improving their health status through increased physical activity and healthy eating.

Finally, this purposive sample was confined to women because of the researcher's interest in investigating relapse attributions that are specific to women in this society. Men were not selected because the researcher is of the opinion that obese men do not experience the same degree of social pressure and discrimination that is often shown towards obese women. Pregnant women were also excluded from this study because a clear differentiation needed to made between weight gain and obesity caused by pregnancy and weight gain that was attributable to the obesity relapse process.

# DATA COLLECTION AND ANALYSIS

Data collection and analysis are not independent processes in qualitative research design. While data collection actually entailed the process of interviewing, informal analysis of the respondent was also conducted during the interview. Handwritten assessment notes taken during and after the interview constituted part of the initial research design. Immediate review of audiotapes, verbatim review of the interview transcript and notes to the methodological log were additional analysis steps that intertwined with data collection. Thus, analysis was ongoing and occurred during the process of data collection. Details of the interview setting and procedure, field notes/methodological log, transcriptions, case study development, case analysis and cross case analysis follow.

Interview Setting. Participants were encouraged to pick an interview setting that would be private, convenient and comfortable. One respondent selected her private office, one respondent asked to be interviewed at home and the remaining six respondents were interviewed in private at the researcher's home. Participants were asked to allow two hours for the complete interview. Participants were told that the interview would be audio taped and asked if they had any objections to this process.

Interview Procedure and Interview Guide. Prior to the beginning of the interview, participants were asked to sign the informed consent form (see Appendix D). This form specified that confidentiality would be preserved during the documentation and reporting process. The consent form detailed the fact that the identity of each of the respondents would remain confidential throughout the research project. Each of the respondents was

asked to select a pseudonym, which was used for the recorded interview, the transcription and the reporting process in this dissertation. The consent form stated that the interview tapes and transcribed documents would only be available to the transcriber, the doctoral committee and the peer debriefer.

Prior to the interview, respondents were asked if they objected to the researcher taking handwritten notes. They were also told that they would receive a copy of the verbatim transcript. Respondents were asked to read the transcript and make any necessary corrections. They were also informed that they would receive their completed case study. They were asked to correct it for any inaccuracies and to make sure that the case study accurately portrayed the information they provided and their story of relapse. The researcher asked the respondents to return their comments within one to two weeks after receiving their case study.

An open-ended interview was used to explore each of the participant's thoughts and feelings about the process of obesity relapse. In this open-ended interview, a group of questions was used to guide the interview. Respondents were not provided with a limited and predetermined set of responses to each question. Instead, respondents were free to respond in any manner they chose. The open-ended questions, which were entitled as the **Interview Guide**, **Table 2**, appear at the end of this chapter.

According to Patton (1990), open-ended interviewing is considered to be an effective way to obtain individual perspectives. Opening and non-threatening questions, such as the first question, "Would you tell me about yourself?" were included to help establish rapport and allow the interviewee to respond freely. In this interview process, if body weight was not mentioned during the response, the next follow-up question was designed

to reflect back on what was previously stated and to sensitively explore weight history. In addition to developing rapport, the open-ended interview dialog was selected because it assisted with enchancing the communication level between the respondent and the interviewer. By careful listening and reflecting back on critical comments and attributions given for relapse, the interviewer was able to facilitate in-depth exploration of the respondent's relevant thoughts and feelings. A limitation of this process was that some respondents would not feel comfortable talking about all of the factors that played a part in their relapse or that they would be unable to recall all of the issues involved in their relapse experience.

The Interview Guide (Table 2) was also used because it provided a set of "baseline" guiding questions, which were asked of all of the respondents. (The only exception was the question pertaining to children. This question was not asked of the one respondent who was single and had no children.) Many of these questions were based on previous relapse studies. The researcher was interested in finding out if the topic areas identified in the relapse research had relevance for any of the relapsers in this investigation.

The interview, however, was not limited to the topic areas contained in the Interview Guide. The emergent design allowed for the inclusion and incorporation of unique points or comments of a respondent to be probed and, if appropriate, built into the interviews that followed. Modifications to the interview guide, such as, "Do you want to tell me more about that issue?" or "Do you think your father's illness affected your weight loss efforts?" were typical of the changes that were made on an individual interview basis. The emergent design also allowed for the probing of unique issues. For example, one of the respondents noted that she classified foods in good and bad categories (dichotomous

food classification). As a result of this emerging issue, all of the respondents were asked if they also classified foods in this manner.

The key question included in the Interview Guide was: "How do you think you regained the weight that you lost?" In each interview, significant time was spent on this probe since the respondent's main attributions were stated within the context of this response. Because of the sensitive nature of this question and the topic of obesity and relapse, care was taken by the researcher not to probe further when the respondent indicated that they had no more to add, or indicated that they preferred not to discuss a topic.

The interview was ended after the respondent had answered all of the questions and had a reached a point of "saturation." This was a point where the respondent became repetitive and reiterated information already discussed. This repetition signaled a conclusion and provided a means for the researcher to double check accuracy of collected data. In all cases, the respondents also acknowledged the conclusion of the interview by indicating that they had no more information to add.

Field Notes and Methodological Log. All of the audiotapes and handwritten notes were reviewed immediately following the interview. The researcher also recorded informal notes in a notebook after each of the interviews. The "field notes/methodological log" contained the researcher's basic observations and impressions of the respondent.

Information on demographics and other key factors was noted. Additional thoughts and observations that occurred throughout the entire research process were also jotted down in this log. Many key aspects of these notes were used for the compilation of the case studies and case analyses.

**Transcriptions.** Transcriptions were made of all the audiotaped interviews. The researcher compared audiotapes to transcripts and reviewed each transcript to ensure that it contained the verbatim recorded interview. The informant was also asked to review the transcript for accuracy. These steps were important for the rigor of the design and for the identification of emergent issues. This review assisted the researcher in identifying other factors or issues that may affect relapse and enabled the emergent design to develop. Case Study Development. Verbatim data from each of the transcripts was reviewed repeatedly through the case study formulation, compared to the audiotape, summarized and reported in a case study format (see Chapter IV). Careful and repeated review of the data was carried out in order to assure accuracy in the final case study report. A case study was generated for each of the eight interviewees. The case studies included an indepth and thorough explanation of the problem of relapse as told by the respondent/interviewee. Each of the case studies was presented as a holistic and descriptive personal account of the individual respondents. Unique experiences of each of the women were provided through direct quotes and details of influential factors that played a part in their obesity relapse.

Basic information on age, marital status, weight, weight history, dieting attempts, was contained in the case studies. Answers to each of the Interview Guide questions (Table 2) were also included. Finally, emergent information, which was a result of the qualitative design, was contained in all of the case studies.

**Content Analysis.** The data gathered from the open-ended interviews was individually presented in the case analysis section (Chapter V). Content analysis was used to summarize the distinct attributions that were emphasized by the respondent as being

influential in their relapse experiences. The researcher's observations and interpretations were included in this analysis process. The content analysis procedure described by Covert (1977) and later by Patton (1990) was employed. Word clusters and phrases from the interview transcripts were used to code the information and develop a common category system. Categories of main reasons or attributions for relapsing were then developed and used to analyze and define each of the cases. The following categories emerged: Physiological Factors, Negative Influence of Practitioners, Food and Drink Habits, Food Cravings, Decreased Physical Activity, Negative Emotions, Positive Emotions, Freedom from Restrictive Dieting, False Sense of Security, Low Self-Esteem, Positive Body Image, Cultural Acceptance, Family Responsibilities and Demands, Sexual Abuse, Parental Push to Diet, Rebellious Overeating, Appetite, Sleep Disturbances, Work Demands, Lack of Motivation. While some of the categories were reflective of the Interview Guide topic areas (Table 2), many of the categories emerged as unique reflections of the individual's story of relapse. The development or evolution of these topics to categories and then to themes is represented in Table 3 (see Chapter V). Table 3 provides a list of interview guide topic areas, categories used in the case analysis and themes that were developed to represent the common themes in the cross-case analysis. **Cross-Case Analysis.** The cross-case analysis examined the common themes or patterns that emerged as influential in the obesity relapse experiences of the respondents. Categories from the case analyses were used to develop common themes for relapse attributions across the cases. Based on these common themes, a conceptual framework of relapse attributions was developed. This framework was used to generate a better understanding of obesity relapse. The themes which were commonly represented in the

case studies were: 1) the impact of food restriction, 2) the impact of having personal choice taken away, 3) negative emotions, 4) physiological factors, 5) lifestyle demands and 6) return to familiar food habits. Negative or divergent patterns were also described in this section.

### ENHANCING QUALITY AND CREDIBILITY OF THE QUALITATIVE DESIGN

Internal and external validity, reliability and objectivity are the conventional criteria for establishing trustworthiness in a quantitative study. In qualitative research these conventional formulations are replaced with concepts which are appropriate for the qualitative paradigm, and also establish the trustworthiness of the project (Lincoln & Guba, 1985). Lincoln and Guba (1985) have proposed that credibility (in place of internal validity), transferability (in place of external validity), dependability (in place of reliability), and confirmability (in place of objectivity) be used to establish and enhance the quality of the research design. All of these concepts have been incorporated into this research design to enhance the trustworthiness of the project.

### **CREDIBILITY**

The criterion of establishing trustworthiness in qualitative research is demonstrated when the researcher produces credible data. The following techniques, which were suggested by Lincoln and Guba (1985) to improve credibility, were used in this study: peer debriefing and member checking.

**Peer Debriefing.** Peer debriefing involves enlisting the help of peers who have experience in the area of research that is under study. Peer debriefers are used to review

the data, to check case studies and to verify and confirm the researcher's representation of the collected information. These reviews function in controlling the researcher's bias during data interpretation. Rebecca Reeve, Ph.D., program manager at IQ Health, a worksite wellness and behavioral weight control program at the University of Virginia, was the peer debriefer for this research project. Dr. Reeve reviewed all transcripts and all case studies. She also reviewed and provided input for the case analysis and cross-case analysis sections.

Dr. Reeve gave recommendations on how to organize the case analysis and provided other helpful suggestions for the written dissertation. She suggested that I insert research citations in the literature review that discussed popular standards of obesity treatment practice. Most importantly she reviewed and then corroborated my assessment of the cases.

Member Checking. Member checking is an additional step that is used to establish trustworthiness or credibility. As suggested by Lincoln & Guba (1985) typed transcripts and case studies should be shared with the respondent so that the respondent can check that the case is accurate and correctly represented. Member checking was implemented in this research study. All of the respondents were asked to confirm that their interview data (transcribed responses, direct quotes) and case studies were correctly represented.

None of the respondents seemed interested in reviewing their transcripts; there were no comments or corrections to these documents. The case studies were returned with very few comments or corrections.

# **TRANSFERABILITY**

Transferability in qualitative research refers to the applicability of the data. One of the main goals of qualitative research is to produce data that are applicable or meaningful and fits the experience(s) of the reader. Transferability or applicability is increased in qualitative research by making sure that a sufficient amount of "thick description" is included in the study (Lincoln & Guba, 1985). This research study attempted to include this high level of description through its use of quotes and contextual information that demonstrated life issues and experiences that were unique to each of the respondents.

# CONFIRMABILITY AND DEPENDABILITY THROUGH AUDITING

The practice of auditing is an additional method used in qualitative research to demonstrate confirmability and dependability of the study. According to Lincoln & Guba (1985), auditing is a means of insuring consistency and authenticating the process of qualitative research. In this study, each step of the research process has been kept on file for possible audit. The researcher's audit trail includes: (a) the research design and purpose as outlined in the proposal; (b) methodological notations of the researcher's perspective (contained in a methodological log); (c) identification and selection of respondents; (d) transcripts and audiotapes, (e) corrected case studies; (f) notes from meetings with the peer debriefer; (g) notes and comments from meetings with committee chair and co-chair. This audit trail was implemented as a means of enhancing the credibility of this research and increasing the quality of this dissertation.

## RESEARCHER AS INSTRUMENT

Unlike the quantitative paradigm, in qualitative inquiry, the researcher is the primary instrument. According to Lincoln and Guba (1985) and Patton (1990), the qualitative paradigm relies on the rigorous thinking of the researcher and his/her ability to relate with thick and accurate description all of the detail of the collected data. Lincoln and Guba (1985) note that human characteristics of responsiveness and adaptability enhance the concept of the researcher as instrument. They point out that the human has capabilities to understand the dimensions of collected information and to make this information more explicit. In addition, they note that the human is adaptable and can simultaneously collect and assimilate information. Such flexibility is key to the qualitative design since it allows for the incorporation of emergent information.

Refinement of the research instrument is also an important feature in the quantitative and qualitative investigative paradigms. In qualitative studies, refinement entails the development of skills and techniques necessary to conduct a rigorous, trustworthy and credible study. Prior to undertaking this study on relapse, the researcher prepared through graduate study in qualitative analysis and through implementation of a pilot project on relapse. The pilot project allowed the researcher to practice and hone skills in interviewing, case study development and analysis. In addition to this preparation, the researcher has been employed in the field of nutrition and dietetics for the past 20 years. The majority of her professional practice time has involved counseling and treatment of obesity and other chronic diseases. Appendix E provides additional information on the researcher and her interest in obesity relapse.

Table 2. Interview Guide

Literature Review Citation	Interview Guide Questions
	Background Questions:
	Please tell me a little bit about yourself.
	Based on what you told me, let's talk a little about your
	weight history and dieting background
	Would you comment specifically on when you became
	overweight?
	Comment on the diets you have been on over the years,
	and whether you were on a liquid diet or other plan with
	fewer than 1200 kcal per day.
	Can you tell me specifically about your daily intake
	while on these diets?
	Were there specific foods that were difficult to avoid?
	Comment on whether you have participated in formal
	weight loss programs.
	Comment on the number of times that you lost and
	regained weight.
	What was your lowest body weight after your most
	recent dieting effort?
	Your current age, martial status, and weight?
No citation	(Please note that, if during the course of the background
	questions the interviewee does not address the specific
	factors listed below, each of the following questions will
	be posed.)
	How do you think you regained the weight you lost?
Finding from studies by Keys, et al., (1950)	How did fasting diets or caloric restrictions affect your
point to the problem encountered up to 33	relapse?
weeks after the end of caloric restriction	Would you comment on your appetite after you came off
excessive intake, cravings, and food	your diet?
preoccupation persist even when food is	
plentiful. Caloric restriction and subsequent	
overeating is also apart of Herman and Polivy's	
(1984) theory of restrained eating.	
	How do you think your cultural food preferences
Cultural food question is based on my interest.	influenced relapse?
Emergent design question	Do you have a list of good foods and bad foods?
The impact of positive and negative emotions	How did emotions (negative or positive) influence your
on eating has been identified in studies by	relapse?
Rosenthal & Marx (1981), Schlundt, et al.,	
(1989), and Kayman et al., (1990). Foreyt, et	
al., (1995) also noted that people who weight	
cycle are more likely to have negative	
psychological attributes.	

Table 2. Interview Guide

Literature Review Citation	Interview Guide Question
Attendance at formalized programs was	Question to be posed only to those that attended formal
associated with relapse in two of the reviewed	programs
citations – Marston & Criss (1984), and	How do you think attendance at a formal weight control
Kayman et al., (1990).	program positively or negatively influenced your
	relapse?
Wolfe (1992) theorizes that reaching a self-	Would you comment on whether you completed a
determined goal weight or having a perception	weight control program or self-initiated diet and got
of success influences maintenance efforts.	down to a personally meaningful body weight?
Schlundt, et al., (1989) also propose the	How did the achievement or non-achievement of a self-
concept of reaching goal weight as one of the	determined weight goal impact your relapse experience?
key difference between maintainers and	
relapsers. Maintainers reach goal.	
Relapsers were noted to be less likely to	Would you comment on your physical activity habits
exercise than maintainers in research by	before and during relapse?
Marston & Criss (1984), and Kayman et al.,	
(1990).	
A social support system, therapist and or	Please tell me about your support system. How do you
friends and family, was deemed to be important	think weight control therapists, family and friends
to maintenance of weight loss in a number of	helped or hindered during weight loss and relapse?
the referenced articles – Perri (1984, 1987,	
1995), Kayman et al., (1990) Baum et al.,	
(1991).	
Poor body image was identified as a distinct	How do you think your view of your own body
characteristic of relapsers in Kayman, et al.,	influenced your relapse?
(1990).	
Disturbed sleep was noted to be more common	Please comment on your sleep patterns.
among relapsers by Marston & Criss (1984).	
No citation, author interest.	If employed, how did work influence relapse?
No citation, author interest.	For the interviewees who have been pregnant, and have
	not addressed the influence of pregnancy on relapse, the
	following will be asked: How do you think pregnancy
	influenced relapse?
	How do you think caring for children has influenced
	relapse?
	Why did you agree to participate in this study?

#### CHAPTER IV

#### CASE STUDIES

This chapter presents the case studies for all of eight study participants. The data, which were collected from the interviews and notes, were summarized and reported in a case study format. Each of the case studies includes an in-depth explanation of the problem of relapse as told by the respondents. The Interview Guide (Table 2) was used to organize the presented information; however, the respondents were not restricted to the open-ended topic areas of the guide. They were free to comment about any factor that may have been influential in their obesity relapse occurrence. The unique attributions of all of the women are provided through direct quotes and details of the influential factors that played a part in their relapse experiences. In an effort to portray respondents in an accurate manner, quotes were left unedited. Editing was used only on occasion to help clarify information provided in the quoted statements.

### **CASE STUDY:GEORGE**

George was an out-going and gregarious woman who agreed to be interviewed after she was referred by one of my nutrition colleagues. Her selection of the pseudonym "George" was telling of a personality that appeared upbeat and friendly. George was a 57-year-old, Caucasian woman who was married with three grown children and a menagerie of dogs, cats and ponies. George commented that all of the members of her family including her pets were at a "perfect" body weight. Unlike her family members, George had struggled with weight loss and gain for more than 25 years. Her attributions for weight gain over this extended period were complicated. The respondent's

predominant attributions about her body weight revolved around her strong feelings that a slow metabolic rate resulting from yo-yo dieting had contributed to her obesity. She believed that she had the disease of morbid obesity and this disease was not always responsive to her dieting attempts. In spite of this belief, she also pointed to earlier times in her life when environmental factors like raising children made it easy to overeat or feelings of depression may have caused her to "self-medicate with food." These environmental and psychological reasons, however, constitute a smaller part of why George thought she has regained lost weight

#### DIETING BACKGROUND

George noted that her predisposition for being heavier started early in life. She described herself as being chunky as a child and recalled that she was overweight most of her life except for periods when she was dancing professionally. She danced for five years from the age of 14 until the age of 19. Pregnancy and the postpartum periods were also times when George noted that her weight was "under control." Although her weight was high during these times, and she characterized herself as "fat," she noted that she did not gain additional weight after the pregnancies. During each of the three pregnancies George gained "exactly 25 pounds" and would lose this extra weight when her babies were about three weeks old. Her first pregnancy was at age of 23 and her last pregnancy was at the age of 29.

George did not become what she terms "chronically obese' until her thirties. When asked what she weighed at that age, she indicated that she thought she was about 160 pounds. She described feeling as if she "hit the wall," at that weight. She was 63 inches in stature and was technically considered obese.

Her recollection of exact weights and ages was not totally clear. After making this assertion about when she became obese, she stated that she was not sure of these figures. During a follow-up, George was asked to recount body weight history again, she indicated that she weighed anywhere from 135 to 190 pounds when she was in her thirties. Her self-reported weight at the time of the interview was 200 pounds. She has maintained this weight for the past 10 years.

According to George, she has been on many diets throughout the past 25 to 30 years. When asked about specific diet names and plans, she commented, "You name it, I've been on it." Included in her list were three separate occasions when she was on the liquid protein modified fasting diet sponsored by the University of Virginia. Each of the fasting regimes consisted of a 12-week regime on a high protein liquid intake of fewer than 400 calories daily. All of her additional dieting regimes consisted of an average caloric intake of 700 calories or fewer. She asserted that she was unable to lose on a diet that contained more than 700 calories.

"I did the protein diet, I don't mean the one at the hospital, I did the one with what's his name? Stillman? I did Stillman. ...Yeah, I've done them all. I've done Weight Watchers...I haven't done too much on the fad diets, like grapefruit diets and things like that. And, I found that protein and water diets were the most successful in terms of my comfort level."

The respondent explained that when she first tried the protein sparing modified fasting diet at the University of Virginia in the early 1980s, she lost 50 pounds. Again, she noted that she was unable to remember her exact body weight prior to this loss. However, she remembered the significant 50-pound loss. Fifty pounds was the most weight she has ever lost on a diet. A physician at the university's Department of Internal Medicine medically supervised this fast. There were no nutrition counseling sessions before, during

or after the initial fasting session of 12 weeks. George described this first fasting experience as her "success story." Unfortunately, she was unable or unwilling to remember how long it took her to gain back her weight.

She lost only 30 pounds on her second fast. According to George, this loss was not much, but was the highest total weight loss in her weight control group. Unlike her first try with fasting, she was supervised by a physician and also counseled by a nutritionist. Finally, the third and most recent time that George fasted was in 1992; she fasted after she had an angioplasty operation. She characterized this as the least successful of all three attempts and as the only negative experience she had at the University's formalized weight loss program. Part of the negative experience she encountered was with one of the education session co-leaders, a physician's assistant. He was brought into the counseling group sessions to help facilitate group discussion. George described her last and least successful fasting experience:

"...And the third time I did it, I did not cheat one iota because by this time I had learned my regain lesson and the whole works. After three months of it, I lost about eight pounds total and that was with exercise. And, then I had that wretched counselor who was with Optifast. He was terrible and should not have been allowed to do it, at least with me. But, I had to stay there because we only had four people in my group, then their sessions would have been meaningless, they would have been too few [in the group]. And, why I cared about them I don't know because it was costing me a fortune. I find that very interesting about myself."

This was the first time in the interview that I thought George was able to pinpoint a possible tangible deterrent to her success at weight loss. She made the following additional comments:

"He was somehow brought into counseling, whether he had any degrees or not, I don't know, but he was dealing with a bunch of women who were a lot smarter than he was, and he never gathered that. And, he could not understand why they weren't needy and grateful to him, but they were just thinking circles around him."

Although the respondent described this practitioner as obtrusive and ineffective, she did not really link this person with her attributions for relapse. When asked if she felt that her negative experience with this practitioner precipitated any relapsing, she noted that she did not think so. Overall, this experience had not really tainted her viewpoint about fasting. George asserted that if her health would allow her to do so and her heart would not be damaged, she would "go on one tomorrow." This she mused was because she would "like to be a really shapely old woman."

Most of George's discussion about her dieting history focused on the fasting programs she attended at the University of Virginia. She did not comment much about her feelings or experiences while at Weight Watchers or any of the other self-initiated diets she went on over the years. However, she noted the fact that she used the drug Redux for about a month. She came off this drug after reading about it and being warned of its harmful effects by her private physician. Finally, during the course of our discussion on dieting history, George stated that she put herself on a diet similar to the Pritikin diet for a two-month period after she had her angioplasty. She stopped this stringent regime after two months because she did not lose any weight. This diet, she also thought, "sent her cholesterol and triglycerides off the chart."

During the time of the interview George was "not counting calories," instead she was trying to restrict her food intake and to exercise more. Her efforts were directed at achieving a healthy lifestyle and preventing exacerbation of current health problems. In addition to heart disease, she indicated that she had been diagnosed with Type 2 Diabetes Mellitus.

Since her angioplasty, her husband has been actively helping her. He exercises with her and does all of the cooking. She quipped, "He is making me eat these brown twiggy things, that I hate." This comment was made in a lightheartedly manner. In general, George's discussion of her husband relayed feelings of genuine fondness. She thought that his culinary help has prevented her from gaining any additional weight. She explained:

"I mean, I just eat what he makes, and I love it because I've hated cooking my entire life and I've cooked for 37 years. ...So I'm excited not to have to deal with the food, I love it. I'm even willing to tolerate his cooking which is not great, but that helps. ...Every fat person should have a wife. That's why men lose, you know, their wives cook for them and worry about them dropping dead. And, that's probably how I I've managed not to gain, as well, because I'm just eating what he gives me."

George's husband's support was referred to again when we discussed exercise and the topic of support in general. This and later segments of the interview pointed to the integral part that her family was playing in preventing any further weight gain.

### MAIN ATTRIBUTIONS FOR RELAPSE

The respondent was unable to give a methodical history of her successive weight relapses. However, she had initially asserted that her she experienced two relapses: when she lost and regained 50 pounds on her first fast and 30 pounds on her second fast.

According to her, there were no really long periods of relapsing. Instead, she stated that her regain was almost immediate, particularly after fasting.

"Even a wet lettuce leaf will put weight on. ...Now I'm not excusing the fact that you fall back into patterns. ... I think it's not that fat people eat more, but I think that they do move a lot less than other people, which again I think is something that is set in their body."

When asked about additional attributions for relapsing, George continued to point to physical factors and realizations about the nature of her body. George explained that she had come to realize in the last ten years that she would never be thin. Although she

acknowledged that, "There has been a lot of eating and what have you on my part," she never delved into this aspect of her attributions even when asked. However, she stated that she thought that her body weight was genetically determined and "not in my control totally." She elucidated this issue by describing the time after her angioplasty when she quit smoking, started exercising twice a day and went on a stringent "almost Pritikin diet" for a two month period. Despite these efforts, she reported that the Pritikin diet was not effective in lowering her blood cholesterol and triglyceride counts. In a matter-of-fact way George stated that she had come to believe that when she attempted to lose weight she just gained more, and this she attributed to a slowed metabolic rate from so many years of dieting. In many regards, her likelihood of developing "morbid obesity" was a certainty according to George. She described this inclination in the following paragraph.

"...But now that even medical science is coming around to look at when you're morbidly obese, such as I am, obesity is one thing, that could be lazy, that could be t.v., that could be bonbons. Morbid obesity is a disease, it's a chronic disease. ...And, it goes part and parcel with heart disease and diabetes and all those others. So, I don't think in my whole life if I had been fighting this, I would have slowed it down, but I certainly would not have eliminated it. It would have caught up with me at some point."

Even though George's main attributions for weight regain revolved around her strong belief about her physiological predisposition to a disease, she did not disregard the impact that psychological factors play in relapse for others. Nevertheless, these factors were assigned less of a central role in causing her regain. While probing her attributions for relapse, George wavered just a little and told me that she was not really sure why people gained back weight. She questioned if the relapse was due to how the body responded to the weight loss and dieting, or whether it was due to the fact that after a fast the initial

rapid regain made people feel guilty. This guilt she thought might cause "self-medicating with food."

Most of the interview was in the third person. At one point, George personalized her answers by telling me that she did not deny the fact that psychological factors, like depression, played a role in her relapse. Yet, she concluded that for her it was more of an 80:20 proposition with the physiological factors playing the larger part in her regain. As part of this discussion, George also told me important psychological and social issues about her earlier life. She believed that her earlier experiences of low self-esteem and being raised in foster care, "Freud would love to blame the fat on." She was unwilling, however, to accept these reasons for her weight regain, especially in the most recent past, when she felt a renewed sense of self-esteem and confidence.

When George reviewed her case study she commented on the vagueness of her answers. She also asserted that she felt eating, lack of exercise and emotions had influenced her regain. But, she did not elaborate on any of these factors by providing additional comments to her case study.

### FASTING DIETS AND RELAPSE

The questions posed during this part of the interview were aimed at finding out if fasting influenced relapse by affecting appetite and cravings. Although enhanced appetite was not identified as an issue for George, she considered the entire period after fasting as problematic. The most difficult part was the task of severely restricting herself to regular food. It was much easier for her to drink a formula than limit her intake to 700 calories of solid food.

"But to actually have to count or watch what you eat is so time-consuming and unfriendly. You know, it's really not--- it's like you have cancer and have to go all day, which some people do, and think of nothing else but cancer. You know, it's not

positive, it doesn't matter if you're losing weight, it's not positive. Some other system is being stressed because of it. So, yeah, oh I would fast in a flash before I'd re-do a 700 calorie diet."

Part of the reason that George did not think that her appetite after fasting was increased was due to the fact that for most of her life she did not know what it felt like to be full. The feeling of not being satiated was always the norm for her. Therefore, fasting did not noticeably increase appetite. Only in the past few years has she noticed a sensation of fullness after eating. This she ascribed to her diabetes medication.

Our interview discussion on appetite and craving flowed into the topic of deprivation. For George, being overweight made her feel a sense of deprivation. She offered an example when she noted that deprivation could be as simple as not being able to eat dessert when everyone else was indulging. Deprivation conjured up other feelings for George. Being "fat," as George so often referred to her obesity, felt like deprivation because it was "isolating and conspicuous." Her additional feelings of deprivation came from wishing that she could be like other people and not have to worry about weight. When I asked if a sense of isolation or feeling conspicuous contributed to George's relapse, she indicated that she did not think so.

### **CULTURAL FOODS AND RELAPSE**

Cultural food preferences did not really figure in George's account of relapse. She noted that she started cooking for herself and her half-sister when she was eight years old. Although she described her cuisine, macaroni and cheese and beef stew in a can, as typifying "Archie Bunker culture," George stated that she could "overeat blanched broccoli just as much as Wonder bread".

### DICHOTOMOUS VIEW OF FOODS

George noted that she had a dichotomous view of foods. She had a list in her mind of what was good food and what was bad food. Apples were good and butter was bad. She also noted that her view extended to the belief that, "If it tastes good I must spit it out because it is bad!"

#### NEGATIVE AND POSITIVE EMOTIONS

George responded that she thought both negative and positive emotion could influence weight relapse. She reflected that being in a positive or good mood was not a guarantee that you would not relapse. In spite of these deliberations on emotions, she did not point to feelings as impacting her relapse during this part of the interview. A more important issue for her was "feeling a void" after fasting. When she was asked to elaborate on this at the follow-up interview, she indicated that she was not sure what she meant.

#### **GOAL WEIGHT ACHIEVEMENT**

Fifty pounds was George's largest weight loss. When asked if she thought this loss was important, George hesitated and indicated that she thought it was important but did not consider the loss "an achievement" like having a baby. For her having children more closely defined a personal sense of achievement. She conceded that she felt good about the weight loss but could not elevate this attainment to the status of a significant accomplishment. This 50-pound loss did not get her to a goal weight. Overall, George does not think that her failure to achieve a specified goal caused her to relapse.

Nevertheless, this weight loss did give George "a feeling of freedom". She ascribed this feeling to the fact that she looked more like others and did not stand out in a crowd because she was fat. Furthermore, she thought that when people noticed her they were

doing so because of whom she was rather than what she looked like. This kind of positive attention was freedom in George's view.

#### PHYSICAL ACTIVITY HABITS AND RELAPSE

George was not really sure if her exercise was any different before or after her periods of relapse. During a follow-up conversation she reiterated the fact that she had always disliked exercise and did not engage in it often. She presently has a routine of aerobics and weight lifting, which she does five times a week.

There were periods in her life when she felt depressed and during these periods she described herself as sedentary. By sedentary, George explained that she was still active in her day to day life. She cooked, did the grocery shopping, and drove her children to their various activities, however, planned exercise like aerobic activity, was not part of her routine. When asked how long these periods lasted, George noted that she had always had a depressive personality, so she was unable to provide the answer in exact years.

### SUPPORT SYSTEM

Friends and family constituted George's support system. George noted that she had many friends and she attributed this to her "compulsively compliant personality." She explained that she went out of her way to get people to like her. And although she found this to be a strange part of her personality, she was able to state that there were very few people that disliked her. Ultimately, George noted that she could not help but feel a sense of support from the many people she had befriended. Nonetheless, friends were not described as influential in helping her with her weight loss efforts.

Her family's support seemed to be much more essential to her efforts at obtaining improved health. She reiterated her earlier positive statements about her husband and

indicated how terrifically supportive her entire family was over the years. In a very factual manner, she qualified her comments about their assistance by stating, "Mostly they know how unhappy I am."

Some parts of our earlier discussions about weight control therapists and their support or lack of support were repeated. Again during this discussion, George recounted only two situations where she encountered ineffective therapists. Their impact on relapsing was not a consideration for her. She explained that she remained compliant and continued to attend weight control sessions despite problems she may have had with the therapists' insensitivity or ineffectiveness. She deliberated further on this issue and then commented that at the time she may have just repressed her feelings about therapist incompetence.

And as a result, she thought that their actions did not affect her efforts.

#### **BODY IMAGE**

George was not able to comment on whether body image affected her weight relapse.

## SLEEP PATTERNS

Up until nine years ago, George reported that she never slept more than four hours a night. She credited her recent improved sleep patterns to the medications she was placed on for her health problems. George stated, "I sleep well, I live well, I think well, I'm happy." Since the change in her sleep habits, she also commented that her body weight has remained relatively steady with minor fluctuations of no more than three pounds. When asked, nonetheless, what she weighed nine years ago, she noted that her weight was lower.

#### WORK AND RELAPSE

George viewed work in a positive manner because work had helped her to be more self-confident. Until recently, George commented that she characterized herself

predominantly as "fat." She felt this in spite of the fact that she had a number scholastic and professional achievements and had always been employed in top-level positions. Her present job has helped her to understand that her intelligence and creativity were definite attributes of her personality.

"Working probably made me care again. I don't know but I get so much positive feedback in my current position, probably more than I've ever had in my whole life, mainly because I've put myself in a position where there are a lot of people around me. And, I'm meeting new people each day, and I get such positive feedback that it doesn't make me feel less unhappy about being fat, but it does make me understand that that's only a component of me, it's not all of me. ...I mean, I'm just starting to see that I have something else besides fat."

### **RAISING CHILDREN**

The respondent stated that she definitely loved her children and "adored parenting." Her devotion and affection for her family were evident when she talked about them. She noted, however, that the only time she found child-rearing to be boring was when her children carried on protracted conversations which began and ended with the question "Why?" Overall, raising children seemed to be physically rather than emotionally demanding for her.

"It's just you, the kid and the peanut butter. The kid only eats a bite, so you finish that off. I mean, I think there is a lot of that. And, you're tired all the time. And you can't diet when you're tired because you have no energy to bring to the task at hand which is, 'Just Say No'."

### WHY THE RESPONDENT PARTICIPATED

George gave a number of very frank reasons for her participation in this interview. Included was the fact that although she doubted that the mechanisms of obesity and relapse would be fully discovered, she was interested in helping out science by providing truthful information. She also asserted that she wanted to help because she was referred by a friend, and she was after all "compulsively compliant".

However, George's main reason for participating was not for the sake of science.

Ultimately, George noted that she participated because she wanted to show me that she was not afraid to talk about her weight. Her defensiveness seemed to be prompted by the fact that she felt as if she was nominated to participate because she was a "failure." Her frankness made me sensitive and cautious about future recruitment for this study.

## **CASE STUDY: SUE**

I knew that Sue had been on and off diets for years, and I asked her if she would consider being interviewed. She was slightly hesitant at first, but after I shared the protocol with her, she was willing to talk about her history of obesity relapse. The major reason that she agreed to participate was because she thought that just talking about her previous experiences might help her with current dieting efforts.

Sue was 46-years old at the time of the interview and weighed 265 pounds. This was obese for her short stature of 63 inches. Sue is a Caucasian woman who is married with two grown daughters. Sue has been dieting for the last thirty years and during this time she has lost and regained over four hundred pounds. In spite of her poor success rate, she seemed relaxed and ready to talk to me about her relapse history. I sensed that her ease might be due to her new found success with a current weight loss diet.

## **DIETING BACKGROUND**

Sue was not able to identify a particular age when she became overweight. Instead, she indicated that she was overweight throughout her childhood. She clearly recalled that she began dieting when she was 15. At this age, her weight was 220. Within one year's time, however, Sue successfully dieted down to 140 pounds. She remained at 140 when she graduated high school at the age of 16. Her weight loss, nevertheless, was not

sustained for a very long period and began to creep back over the next two-year period. This relapse started soon after high school graduation when she moved away from home and began a new job. Sue noted that her new lifestyle situation was not conducive to dieting. Part of the problem was that she socialized more with friends and it was "hard to stay on a diet, travel and do what you want to do."

Marriage and pregnancy also seemed to further complicate Sue's weight problems. At the age of 18, one year after she started working, she married her first husband. Her commitment to staying thin waned further during the marriage. She attributed her lack of motivation to what she identified as a mistaken notion that her husband would love her at any weight. Significant backsliding on her part led to weight gain during the first two years of the marriage. By the time she was 19, and pregnant with her first child, she weighed 250 pounds.

According to Sue, her first marriage lasted for nine years, and it was not a happy union. During this time, she went through a cycle of relapse, weight loss and repeat relapse. On a very disenchanted note, Sue commented about her initial expectations of marriage and her rebound weight gain:

"...Then got married and got off my diet again because I figured that once you have somebody...you don't have to stay on diets any more because you can do what you want to do as long as you've got that special person. They should stick with you no matter what."

Although she commented about not staying on diets while married, she did diet a number of times over those nine years. Sue liked the Weight Watchers format and went on her own version of a Weight Watchers 1200-calorie diet soon after the birth of her first child. Her weight had reached 250 pounds after this pregnancy, however, one year

postpartum she lost back down to 140 pounds. Sue was about twenty years old at the time of this second major weight loss.

This weight loss was not sustained for very long and in slightly over a year, she had relapsed again and was back to 220 pounds. Notwithstanding this relapse, Sue continued to diet intermittently throughout her twenties and into her mid-thirties. While in her midtwenties she met and married her second husband. He was described as a loving companion who was not judgmental about Sue's weight. In spite of his acceptance of her body weight, Sue continued to go on and off diets. She indicated that almost all of the diets she placed herself on throughout her life were based on the Weight Watcher's program and entailed 1200 to 1400 calories a day. There were, however, two exceptions to her typical Weight Watcher regime. When she was about 23 years old, Sue tried a twoweek water and fruit fast. She lost and quickly regained ten pounds on this self-designed fast. And, the second exception was when she followed the NutriSystem diet for a sixmonth period in 1981/82 when she was in her early thirties. Sue lost 60 pounds in six months on the NutriSystem diet. This program was described as a pre-packaged food plan that was supplemented with diuretics and vitamin and minerals. Sue was unaware of the calorie level of this regimen.

But the weight loss following the NutriSystem plan was also a loss that she could not maintain. According to Sue, after being on the program for six months, she could not handle it. She was unable to tolerate the packaged food and the supplemental laxatives and diuretics made her feel weak. Within six months, Sue was back to her usual weight of 250 to 260 pounds.

Despite these periodic weight losses and on-going dieting attempts, she noted that for a period of time she was unable to strictly adhere to any dieting regime. None of her endeavors were effective in the long term. Her weight returned to 220-260 range during most of her twenties and thirties. When asked to summarize the number of times she dieted during this time period, she noted:

"I went back to Weight Watchers. I've been there about five times, on and off. A month here, I'd stay for six months, get off, maybe go off for another month, then get back on, because I couldn't get back into it. ...I did NutriSystem for six months...I lost 30 pounds in 30 days. I was losing a pound a day, which was great, but as soon as you get off of it, you go right back to the same thing because if you don't stick with it, the weight will come back."

As Sue got slightly older, she did not give up her desire to be a thinner person. In 1990, at the age of 38, Sue went on the TOPS (Take off Pounds Sensibly) diet plan. She was decidedly more enthusiastic when she recalled being involved with this program. Part of her enthusiasm was because she was so successful and was crowned "weight loss champion." Sue explained that after being on this program for one year, she lost a total of 130 pounds, or one-half her body weight, and reached a low of 130 pounds. This accomplishment earned her the TOPS organization title as "Virginia's Weight Loss Champion."

Aspects of the TOPS program had particular appeal for Sue. This program was not taught by a nutritionist or other weight control specialist; instead overweight peers, under the auspices of TOPS, ran the weekly meetings. Sue's enthusiasm about the TOPS program was in part due to this informal nature and built-in peer support. All dieters were provided with a "buddy" who was available by phone to offer encouragement when dieting got difficult. In addition to this support, the more loosely structured food plan also appealed to her. Calorie controlled diet plans were not individually prescribed. Instead,

Sue noted that information on a range of nutritionally balanced calorie limited diets was distributed and participants made their own decision about which level to follow.

Exercise was also encouraged. Sue indicated that she kept her calorie level at 1200 for a 12-month period and lost 130 pounds.

Unfortunately, the TOPS championship was not a 'happy ever after' ending to her weight struggle. Within one year's time, she repeated her relapse pattern and regained all of her lost weight. At the age of 40, she was back to her usual weight of 260 pounds.

Sue went back on her Weight Watchers 1200-1400 calorie diet in January of 1999, and started attending the TOPS support group in March of 1999. According to the interviewee, her latest weight loss effort was going to be her last because she is determined not to relapse again. She reported that she lost weight steadily since the beginning of the year. This time, her determination seemed to be fueled by her physician's admonitions about her health, as well as her own desire to be a healthier yet thinner woman.

### MAIN ATTRIBUTIONS FOR RELAPSE

Based on Sue's history of dieting, there were many times when she lost and regained 25 pounds or more of her body weight. As she indicated, the first relapse occurred approximately two and one-half years after her first weight loss diet when she was approximately 19 years old, 1 year after her post-partum diet when she was 21 years old, six months after her NutriSystem diet at approximately 30 years old, and finally at the age of 40, one year after her TOPS championship.

Sue's initial attributions for all of her relapses involved what she described as "socializing." Sue liked to go out with her friends and have a good time. Socializing

almost always entailed drinking alcohol. Calorie counting was clearly out of the question once alcohol loosened her restraint. She stated:

"It wasn't necessarily the food that gets it, because I went out a lot drinking. You have a beer here and a mixed drink there, and like I said, I didn't eat a whole lot. But I'd drink with friends, and the more alcohol you drank, it seemed like the more calories I was putting in. ...Even though it's light beer, it still puts it back on."

Besides pinpointing alcohol as a contributor to her relapses, Sue described playing a "five pound" mind game.

"...I felt like I had lost all the weight and now I had time to play with it. Usually you could say that you've got five pounds to play with. Well, I felt that five pounds would be all I wanted. But I kept eating and eating and going out and doing things with my friends. And I started drinking, of course, the alcohol will put it on really fast, and I just started doing that. And, that's what happened, and I just lost it. I gave it up; I just didn't care anymore. I got to do what I wanted to do."

Although Sue initially described excessive drinking and eating as being associated with positive moods, she also stated that there were periods in her life when she was so stressed out, she drank and ate by herself to relieve stress. Her attributions for her most recent relapse in 1992 were associated with such negative emotions brought about by difficulties she had dealing with her youngest daughter. She described part of her daily scenario:

"My youngest child, we had a lot of problems with her, you know school and stuff. And I started putting on the weight with her. ...You work everyday, come home, and then there are problems. And, you try to handle them yourself, you can't. And then you just give up and say, 'Okay, I'm just going to have a mixed drink or a couple of mixed drinks.' And then you sit down and eat a pizza by yourself, or whatever you wanted to eat and [you] don't worry about it."

Her (second) husband's unconditional acceptance also seemed to function as a contributor in her last two relapses. Sue stated that when she was feeling stressed and started eating, the belief that her husband was "always going to be there, no matter what" was part of her response of "not caring any more" about dieting.

Finally, in addition to the impact that positive and negative emotions had on all of Sue's relapses, physical factors played a role when she regained her weight after the NutriSystem diet. She was simply unable to endure how weak and sickly she felt on this diet. Because of this weakness, she came off of the diet and stated that she quickly regained her lost weight.

#### FASTING DIETS AND RELAPSE

Although Sue's NutriSystem diet sounded like a fasting diet with fewer than 1200 calories, Sue did not include this experience in her responses when she discussed fasting diets. She noted that she only fasted once and that was for a brief period on a self-designed diet. Her fast lasted 14 days and it consisted of fruit, crackers, water and purgatives. She stated that the caloric level of her fast was approximately 1000 calories a day. Sue noted that she lost 10 pounds after this fast, but had to stop because she felt so weak and was fearful that she would get "hooked" on laxatives and diuretics.

After this brief fast she regained her weight quickly. She attributed this rapid regain to the fact that after the fast she had extreme food cravings and a heightened appetite.

"I craved ice cream, but then got back into [eating] pastas too, because I love spaghetti. I like pasta and sauces and I like macaroni and cheese. ... And then I got into pizza, too. I got hooked back into pizza. I would sit down and eat two or three slices and before you know it, the pizza is gone."

According to the respondent, a feeling of defeat precipitated by the fact that she had deprived herself unnecessarily also caused excessive eating following this fast. This experience has cured Sue of the desire to ever fast again. According to Sue, one dieting fact was now certain, fasting was unhealthy and undesirable in her book.

#### CULTURAL FOODS AND RELAPSE

Sues grew up in the South and her cultural food heritage included lots of fried and fatty foods. Fried chicken, sausage, bacon, homemade bread and fresh corn were typical foods that she ate while growing up. However, these foods were not the food choices that she prepared after she left her parent's home. In fact, the respondent did not think that higher fat Southern cuisine necessarily influenced her relapses. Sue noted that she had changed her food choices and cooking style a long time ago. If she ate bacon, she noted that she was careful to only prepare turkey bacon or sausage. Baking and broiling rather than frying were also her preferred methods of cooking.

When Sue overate she tended to select foods that did not typify Southern cuisine.

Pizza, pasta with heavy sauces, and ice cream were her downfall. These were not foods that characterized her mother's cuisine.

## **DICHOTOMOUS VIEW OF FOODS**

Sue was the first respondent to bring up the issue of good and bad classification of foods or that she had a dichotomous view of foods. This categorization was not stated to be contributory to her relapse problems.

### NEGATIVE AND POSITIVE EMOTIONS

Negative and positive emotions were both identified as contributors to Sue's relapse problems. Sue liked to "party and to socialize" and these positive feelings often got her into trouble because she would over eat and drink. While both positive and negative emotions seemed to be at play in her relapse problems, negative emotions prevailed in the relapse scenarios that she described.

In only one situation did a negative life situation contribute to weight loss and that was largely due to the fact that Sue did not have money to eat. This situation occurred

immediately following her divorce when she was forced to leave home and to support herself and one of her daughters. For a year, she lived in a motel room and worked as a waitress. Her body weight was lower than it had been for a number of years because she did not have enough money to feed her child and herself. However, as soon as she was financially secure, she started to gain weight.

The power of negative emotions, nevertheless, seemed to be more of an influential factor in her latest relapse. Sue referred to her stressful family life and the difficulty she had coping with her troubled 21-year-old daughter. Her daughter relied on Sue and her husband for emotional and financial support. This reliance caused a great deal of stress.

"It's very hard when you have to raise two families. ... You have to make sure she gets to work or the baby gets to the sitter... and that's very stressful because she is old enough to take care of herself. And, we are not getting any younger, we need time for ourselves. It's bad for a relationship... then I get stressed out because I don't want to talk to her or I feel guilty if I don't do it. And, then I get to eating, I sit down and I may have a drink."

According to Sue, the emotional drain from these circumstances took a toll on her health. As part of her new diet resolution, Sue was trying to cope with her life situation by taking better care of herself and by worrying less. Health and happiness were two life conditions that she wanted in the upcoming year.

### **GOAL WEIGHT ACHIEVEMENT**

The respondent had achieved her goal weight a number of times throughout the years.

Reaching her goal of between 135 to 145 pounds always made her feel "wonderful." She felt this way after receiving the TOPS championship and described this sensation as if she was "on top on the world." Although this elation and ultimate feeling of achievement were realities for Sue, they did not prevent her from relapsing. Attainment of her goal weight was now powerful enough to keep her from regaining. Soon after she reached

goal, Sue noted that she relapsed because of "a lot of personal problems." These problems she acknowledged were related to the situation with her daughter.

#### PHYSICAL ACTIVITY HABITS AND RELAPSE

Sue tended to exercise when she was losing weight, but would stop when she was relapsing. During her weight loss periods, exercise consisted of stationary biking and walking five times a week or more. However, this routine was only an established part of her dieting lifestyle. As soon as Sue was off the bandwagon and relapsing she would stop her physical activity. According to Sue, exercising seemed to be "a waste of time" when she was "eating and putting the weight back on." She honestly commented that she "didn't worry about it anymore," instead she would "just come home and look at t.v."

### SUPPORT SYSTEM

The respondent commented that her support system consisted of her friends, co-workers and her husband. Sue counted on their support when she was dieting. She loved to receive compliments on her appearance when she was losing weight. Compliments and praise bolstered her resolve to lose. Although she commented that her primary reason for her current diet was to improve her health, she also described how gratifying it felt when people noticed how good she looked. This recognition made her feel as if she was "back on track" and "was going to be all right."

Part of the reason that Sue thought she relapsed in 1991, after she lost down to 130 pounds was that people stopped noticing her achievement. This lack of acknowledgement played a part in her relapse. Sue noted that the fact that "nobody really cared" whether she was thin or overweight may have contributed to her overeating.

Throughout the years, Sue has relied on the support of her second husband. She thought that he truly cared about her weight control struggles and tried to help. At the

time of the interview, he was dieting with her and was also helping out by bringing low fat foods into the household. Although Sue portrayed her second husband as supportive, she also commented that his support would come in the form of admonishments about health. According to the respondent, her husband would often state:

"You're doing it for yourself, don't do it for me. And if you put the weight back on, you know it's going to be your health. And there's nothing I can do. I can't sit you down and tie you to a chair and force feed you. You have to do it by yourself."

Even though his message sounded confusing, Sue did not think that her husband ever tried to sabotage her efforts. In all ways, Sue felt that her husband was a supportive partner who had "been with her through thick and thin."

On the other hand, weight control counselors and staff at Weight Watchers were not thought to have much influence on her weight status. Fellow dieters were much more influential. In fact, Sue noted that she loved to go to TOPS because the dieters there provided her with lots of positive support and praise. The weekly prize for the largest weight loss was also an inducement to attend meetings.

#### **BODY IMAGE**

The respondent's concept of her body image influenced her throughout periods of weight loss and relapse. Sue loved to see an image of a thinner woman in the mirror. This positive image helped her to stay motivated. However, a negative image was also powerful. Her negative view of herself when she was relapsing and gaining weight intensified her problems. Sue commented that when she was in a weight-gaining phase, the image of herself as a bigger woman would often make her depressed. It was a vicious cycle and according to Sue, "The more depressed I get, I think the more I eat."

Although anger and disappointment would also serve as motivators for weight loss, it seemed as if negative factors like depression would often subvert her efforts at trying to lose.

### **SLEEP PATTERNS**

On the average, Sue slept five hours each night. This limited amount was typical for her. In fact, Sue commented that if she slept more than this or took a nap, she felt ill.

### WORK AND RELAPSE

Work was stressful for Sue because she had unlimited access to food. She commented that she liked the people that she worked with and also liked her boss, but the food availability presented unique problems for her. Breakfast, lunch and unlimited snacks were provided by her employer, and although this would be viewed as a perk by some, Sue found this situation difficult. It took additional resolve to deal with the availability of food at work and her existent body weight struggles.

#### RAISING CHILDREN

Motherhood and raising young children were not considered to be contributors to Sue's early relapse problems. Sue noted that there were stressful times immediately following her divorce when she was a single mother raising a daughter. However, caring for her children did not exert an influence on her weight relapses. In fact, Sue tended to maintain her weight in a lower range of 170 to 175 pounds when her children were toddlers. It is only in the recent past that the burden of family responsibilities has impacted her and her body weight status. The stress of shouldering the burden of her youngest daughter's problems often led to overeating and drinking.

### WHY THE RESPONDENT PARTICIPATED

Sue participated because she wanted to help me out and because she stated that she liked me. In addition, she noted that she participated because she found it helpful to talk about the issues surrounding her previous relapse experiences. Ultimately, she was hopeful that some of her realizations would help her with her current goal to lose weight and stay thin.

## CASE STUDY: EILEEN

Eileen contacted me after being told about this dissertation project by her psychotherapist. She was quite enthusiastic about being interviewed. When I met Eileen I thought she appeared rather young for her age. She was a 53-year-old Caucasian woman who had long blond hair. Graying temples and wrinkles around her eyes were the only features that betrayed her otherwise youthful appearance. As part of her background, Eileen included the fact that she was living with her boyfriend. She also noted that she had raised two sons. She was estranged from her oldest son and her youngest son was killed in a biking accident when he was in his early teens.

Eileen was soft spoken and gentle in manner. These characteristics seemed to be perfect for her profession as a daycare worker for elderly people. Although Eileen appeared to be shy, on one hand, she was also self-assured. On the day of the interview, she asked in an assertive manner if she could see the interview questions before the interview began. She wanted to review them before she signed the participation agreement. Eileen perused the interview guide before we started, seemed satisfied and began talking without hesitation.

#### DIETING BACKGROUND

Eileen explained that she has been heavy most of her life. She started putting on weight when she was around eight years old, and except for a brief period, remained heavy into her adult years. She recalled that throughout her childhood her mother pushed her to lose weight. Her mother tried to cajole her with the tired adage, "If only you would lose weight.... you have such a pretty face." Eileen recollected that at the early age of 8 or 9, her mother placed her on a series of diets and even took her to see doctors who gave her diet medications for weight loss. Despite such concerted effort by her mother, Eileen described all of her mother's attempts as futile. Eileen observed that ultimately she lacked motivation, and because of her indifferent attitude, she was not successful at losing weight. The only time that she could remember not being heavy was for about one year when she was a senior in high school. She recounted that at the time her mother pushed her to diet and took her to a doctor who gave her "some kind of shots." Eileen seemed to be a fairly passive recipient of this weight loss regime until she discovered teenage boys. This discovery seemed to happen concurrently with her weight loss. She noted that for the first time she was "somewhat motivated," but even this period was short lived.

"I just sort of went along for the ride because she had been bugging me ever since I started gaining weight. .... So, for my senior year I lost weight. That was also the year that I quit getting good grades and discovered that there were boys. So that [weight loss] was basically for one year."

Eileen's weight problems returned soon after her senior year. Against her father's will Eileen decided not to go to college. Instead, she met and married her first husband at the age of 19. Six months after she married, Eileen became pregnant. Pregnancy was the start of significant and intractable weight problems. During this first pregnancy at age 20,

she gained 70 pounds. She lost only 30 pounds of this excess weight in a short postpartum period. One year later, Eileen was pregnant again. This pregnancy compounded her existing weight problems. She gained even more weight with the second pregnancy and never managed to lose it successfully. Because of her excess weight gain and elevated blood pressure, each of the pregnancies was high risk. Eileen was diagnosed with toxemia on both occasions.

Although she had gained excessive weight at an early age, Eileen maintained that she was not motivated to lose it. Her dieting background during adulthood was filled with many half-hearted attempts at weight loss. She commented:

"I did diet every now and then when I would have a doctor who would bug me about it. So, I would lose maybe five or ten pounds and then go to another doctor. I wasn't motivated at all to lose weight. It, food, was pretty much my only comfort. And, then being a young mother, being poor, and having a husband who was a jerk, they just all added up to me not being motivated at all. I didn't have any good feelings at all about myself. I didn't know why. I just figured I was crazy like people told me."

Some of the diets she tried were more memorable than the occasional efforts previously explained. Eileen went on two liquid protein fasts and lost significant amounts of weight. Her first fast was in 1980 when she put herself on the Cambridge diet. The Cambridge diet was a liquid protein sparing modified fasting formula that contained a daily amount of approximately 600 calories. Eileen stayed on this fast for "four, five, six months" until her supplies "petered out." Eileen explained that she was also a distributor for Cambridge, but she stopped selling this formula diet around the same time she took herself off the regimen. After being on the Cambridge formula for several months, her weight went from 250 pounds to 200 pounds.

In 1993, thirteen years after her Cambridge fasting diet, Eileen tried another fasting diet called Optifast. The daily caloric content of the Optifast liquid diet was higher than

the Cambridge diet and had approximately 800 calories. She obtained this formula from a wellness center in a neighboring town. Even though this fasting program was billed as medically supervised, Eileen commented that she never saw a doctor during the entire four to five month period that she was on the fast. This program did not have a formal nutrition education component nor provide psychology counseling. Eileen noted that she went weekly, was weighed by a 'counselor' and paid her money for more formula.

Eileen lost 50 to 60 pounds on the Optifast regimen and weighed 200 pounds at the end of this fast. In comparison to any of the other diets she had been on, Eileen described feeling much more motivated when she was engaged in fasting. However, soon after she stopped drinking the Optifast formula, she quickly regained the weight. This also happened after the Cambridge diet in 1980. She returned to 250 pounds on both occasions, a weight that she identified as a body weight set point.

In addition to these more notable fasts, she placed herself on many popular diets. She was on the Weight Watcher diet for six weeks and then lost motivation. She tried innumerable diet plans, but the names of so many of these diets seemed to escape her. Part of the memory lapse may have been attributable to the fact that she was unable to maintain any of these regimens for more than a very brief period. "I just never was motivated, I was motivated to start, but I wasn't motivated to finish." Her recall of exact dieting routines, weight loss, food or calorie limitations was also vague. Eileen summarized her weight and dieting history by stating, "I've pretty much been heavy all my life." At the time of the interview Eileen was 247 pounds and measured 62 inches in height.

### MAIN ATTRIBUTIONS FOR RELAPSE

When Eileen was asked why she thought she lost motivation and relapsed after the Cambridge and Optifast diets, her explanations and subsequent attributions for these two weight relapses were intense. She explained that through psychological therapy she had become aware that she had been molested as a very small child by her grandfather and then later by a teenage baby-sitter. According to Eileen, childhood sexual abuse, compounded by demanding parents and a long history of involvement in abusive relationships, laid the groundwork for a life of being overweight. She frankly had a fear of being thin and attractive. Eileen hit her highest weight of 286 pounds, 14 years ago, right before she entered psychotherapy. While discussing her parents and their influence on her, she stated the following:

"And, so I got mixed messages from my parents, such as, 'Clean your plate'.... 'Why is she gaining so much weight?" ...And, there was my father [he] did things like--- I brought home an all A report card one time and I was so excited about it... and I was waiting to get this humongous hug, and 'Oh this is so wonderful.' And, Daddy looked at it, and he patted my shoulder, and he turned around to walk away, and he said, 'Well, good, now next time you can get all A+s.' So, I pretty much learned that I wasn't perfect, and I wasn't worthy."

Eileen described her tendency in adult life to play out these early-learned feelings of being told she was not "worthy." She explained that she had entered into physically and verbally abusive relationships with men which "reinforced all the things that I felt about myself." Her history of being sexually abused had also exacerbated her problems. She stated that she used her "body for armor to keep people away and to keep men away." These fears played a part in her subsequent weight gain after both of the fasts.

"...When somebody, a male, would say something like, 'Well, gosh darn it, you're looking really good now,' and it was just like, 'Oops, I don't want to do that, I don't want a man to act that way towards me.' So those times, when a man says that to me...and that would trigger all those old tapes, and I would go get a pizza. And, it would start all over again, 'Hurry up put it back on. Put it back on. Hurry up and put

it back on.' I didn't understand, but I certainly should have known better. I'm not stupid."

### FASTING DIETS AND RELAPSE

Eileen did not think that the fasting diets influenced her relapse. She had not experienced increased appetite or food cravings after coming off of the two fasting regimes. Furthermore, she did not think that the absence or presence of any of the counselors during her Optifast diet influenced her weight loss or subsequent relapse. The weight gain she thought before and following these diets was due to a number of other factors. Included in these factors, were lack of motivation and an "addictive" response to food.

"...And so I would cook something that tasted so good that there was a certain amount of a buzz that I would get. ...I felt more at peace I guess. It would sort of calm, well probably anesthetize [me]. ...And then the more I ate, the more satiated I would become, or then I would be real sleepy and go to sleep."

In addition to these stated problems, the reintroduction of solid food after a fast was difficult for her. According to Eileen, it was much easier for her to drink protein formula and not deal with food. It was difficult to eat limited amounts of "real food." Besides these factors, Eileen stated that she had a lifestyle that was contributory to weight gain. She socialized a great deal after she left her first husband. Although Eileen identified alcohol drinking as another contributor to excessive caloric intake, she thought, "food was the major thing" when it came to why she relapsed.

#### **CULTURAL FOODS AND RELAPSE**

Cooking and eating heavy German cuisine were both enjoyable parts of Eileen's food culture. She noted that she was introduced to German cooking when she was still very young. According to the respondent, by the time she was eight years old, she had already received her first cookbook and was cooking. When she discussed the cultural

and social influence of family on food habits, she fondly remembered that her grandmother would cook for three weeks before a holiday. Eileen loved her grandmother and her cooking style seemed to be a tribute to her.

"I liked cooking, I liked eating. I mean, everybody would sit around the table for a long time and eat, talk and visit. My grandmother, my father's mother, was the only person who really gave me unconditional love, and I've emulated her in a lot of ways. ...And, so in a lot of ways I wanted to be like her. And, I guess I did, I sort of followed in a lot of her footsteps."

#### DICHOTOMOUS VIEW OF FOODS

Eileen noted that she did not have a dichotomous view of foods. She did not have a mental list of good and bad foods.

### NEGATIVE AND POSITIVE EMOTIONS

According to Eileen, emotions influenced her eating "more than anything else." She identified both positive and negative emotions as being linked to her problems with overeating. Earlier in the interview, Eileen alluded to the fact that she frequently overate when she was in a happy mood and socializing. Yet, when asked specifically about the impact of emotions on intake, she indicated that she also used food to deal with her negative feelings. In an attempt to illustrate just how powerful she thought her emotions were on influencing her eating, she described a time when she conducted personal research on how infrequently she felt the physiological sensation of hunger.

"...I practically had to not eat anything for two days so I could feel food hunger because I didn't know what it was like. ... I was always so busy eating for other reasons, I wanted a hug, or I was sad, or I was lonely, or I was happy, or whatever. ...I think I just learned to use food whenever there's a feeling there of some kind of stress coming up--- to just eat it down. Eat it down. Eat it away."

# **GOAL WEIGHT ACHIEVEMENT**

Eileen did not set goal weights during her two major fasting diets. Just "losing the weight" was important to her. And, while losing 50 pounds or more on two occasions

made her feel "good," failing to achieve ideal weight made her feel defeated. She described, her feelings after the first fast of "working really hard" to lose to 200 pounds, and her frustration at still having "so far to go" to get to an ideal weight. Eileen thought that her perfectionist attitude made the task of losing all her excess weight daunting. Perfectionism and her unresolved fear of thinness, she felt, chipped away at her perseverance and caused her to give up on further weight loss.

#### PHYSICAL ACTIVITY HABITS AND RELAPSE

Eileen did not make physical activity part of her daily routine. Even when she was losing weight on the fasting diets, she did not exercise. According to her, "Exercise was not anything that ever crossed my mind." Only in the past year has she been engaging in a regular routine of physical activity. Her change in attitude towards exercise was largely due to health conditions. She was diagnosed with hypertension and diabetes and exercise has helped to keep both of these medical problems under control. She noted that her weight dropped to 227 pounds after a few months of exercising and controlling her intake. However, she was back to 247 pounds at the time of the interview. She was unsure about why she had regained 20 pounds; in part she thought that it might be associated with feeling "scared." She attributed her most recent anxiety to the fact that she was attracted to a man in her exercise class. This attraction caused stress because she was worried and afraid about leaving her current relationship.

# SUPPORT SYSTEM

Eileen thought that her relationship with her boyfriend was also part of her overeating. She noted that he was not a very "warm person" and that their relationship was troubled. As a result of her boyfriend's alcohol abuse, she had previously endured physical violence. Even though he stopped drinking and the abuse had stopped, Eileen struggled

with conflicted feelings towards him. When she discussed the issue of his support, Eileen described her struggle and the silence that characterized her home life.

"And he stopped drinking, and he really does try, bless his heart. I have a certain amount of guilt about wanting to end the relationship because he really has tried hard. I feel bad that I didn't leave him when he was beating the hell out of me. You know, here he is, he's really trying, and he's doing what he can. And he's got his limitations. ...He doesn't understand concepts. He doesn't understand when I talk to him about, well, used to talk to him about therapy. So, our house is pretty silent. The only thing we talk about is the dog."

Regarding support for weight loss, Eileen found her boyfriend to be neither positive nor negative in his support of her efforts. "Losing weight has not ever, ever, ever, ever, ever, been an issue with him," she noted. In general, support from other family members was negative or non-existent. Her brother, who was the remaining close family member, was described as non-supportive about weight, her lifestyle, or her relationships.

Eileen described her exercise group and her psychotherapist as being two sources of positive support for her. This positive support was relatively novel to Eileen and something that she was learning to get accustomed to and trust. She commented that she still had to get used to people being nice for no reason. Ultimately, she noted that the support of her group and therapist was helping to "make it easier." Both sources seemed to be assisting her with personal goals of achieving physical and emotional well being.

### BODY IMAGE

Although she never really thought about it before, Eileen responded that she did not think that her body image influenced her to lose weight or regain. She stated bluntly, "I've always had a bad, non-loving, non-accepting body image." On a conscious level she was not able to identify if these feelings contributed to her body weight status in any way.

Only in the recent past has Eileen noticed a slight attractiveness in her body shape.

This appreciation was attributable to her weight lifting efforts and better body definition.

The improvements she saw in her arm and calf muscle seemed to be particularly gratifying. She commented that she was able to pass a mirror and admire her calves, or flex her arm muscles and feel proud.

### **SLEEP PATTERNS**

Until recently, a typical night's sleep for Eileen was eight to ten hours. She has never been sleep deprived. Furthermore, she did not think that there was discernible difference in sleep patterns when she was losing weight or gaining. At the time of the interview, she noted that she needed less sleep because of her increased physical activity.

### WORK AND RELAPSE

Occasional boredom rather than stress seemed to characterize feelings that Eileen had about her job. She was employed as a daycare worker for the elderly and she commented that she "likes the elderly and their stories, but they also sleep a lot." Their excess sleeping made her feel bored. While she did not react to boredom by overeating at work, sometimes when she went home in a listless state of mind, she would overindulge in food. The sight and smell of high fat foods prepared by her boyfriend tended to exacerbate the effect of boredom by also heightening her appetite.

### **RAISING CHILDREN**

When we discussed the topic of caring for children and the possible influence of this factor on relapse, Eileen indicated that she did not think that raising children exerted much of an influence on her weight regain. She again pointed to her history of sexual abuse and the subsequent problems and feelings that abuse caused in her adult life. Through her psychological therapy sessions, Eileen was able to uncover the damaging effects of her history and to work on recovery. She thought that before she started therapy, the "garbled inside stuff" and feelings of "low self-esteem" contributed to the

overeating. The stresses of raising children paled in comparison to all of the other problems and bad feelings she was dealing with at the time.

#### WHY THE RESPONDENT PARTICIPATED

Eileen seemed to look upon participation in this dissertation project as an opportunity. She told me that for the longest time she felt as if she did not have anything to offer others. Nonetheless, she has changed her view of herself and hoped that she could help people by sharing her experiences. She thought that her intuitive knowledge and her personal account might assist younger women who may have similar problems. Eileen thought that perhaps her disclosure about sexual abuse and its impact on her eating and body weight would help save time and anguish for a younger woman just beginning to deal with comparable difficulties. Finally, she saw value in participating in a project that would inform people about obesity relapse. She was hopeful that it would enlighten some doctors who might oversimplify obesity relapse. For Eileen, relapse was more complex than eating too many calories.

## **CASE STUDY: REBECCA**

I met Rebecca through a mutual friend about five years ago. As I got to know her, she shared the fact that she had attended IQ Health, the formal weight control program, at the University of Virginia Medical Center. Over the years, Rebecca also shared her continued interest in nutrition and weight loss. Rebecca knew about my project and when I asked her to be a participant, she was quite willing to be interviewed. At the time of he interview, Rebecca was 47 years old and was working on losing weight. She weighed 203 pounds and was 66-1/2inches tall. Additional aspects of her profile included the fact that she was a married Caucasian woman with two young teenage daughters.

### **DIETING BACKGROUND**

Rebecca recalled that up until the age of five she was a "skinny" child. According to her, from the age of five years and throughout most of her childhood, she had been overweight and unhappy about it. At the age of five, she commented, "I just got fat and they couldn't figure it out." However as she got older, she figured out a way to "fix" her situation. Rebecca indicated that she purged from the age of 12 until 28 to help her control her weight. She commented:

"I have been overweight ever since I can remember and unhappy about it ever since I can remember. I started fixing that myself, secretly when I was 12 years old, by making myself throw up. I didn't recognize it as anything bad. I thought it was a pretty good idea."

As early as adolescence, Rebecca was also given diet pills to control her weight Rebecca remembered that her pediatrician put her on a drug called Preluden when she was about 12 years old. She noted that she took Preluden intermittently until her last year in college. Rebecca recalled that she weighed 165 as a senior in high school, but weighed less than that through college. Her weight fluctuated between 129 and 145 pounds through college; this lower range was in part due to the use of Preluden.

"...My mother said I was so unhappy as a seventh grader. ...Apparently I ballooned at puberty into 180, and I was five-foot two. So, that's pretty hefty. We were having a hard time finding clothes. ...So she took me to the doctor, my pediatrician and he prescribed diet pills at--- I was either twelve or thirteen. And frankly, I took diet pills on and off until my senior year in college. That was the way I fixed my weight. And then, when I was a senior in college, they took that particular diet pill off the market. Apparently it was very dangerous. ...And, I have been struggling with my weight ever since. I mean the diet pills really worked along with the other strange things I was doing to stay skinny. The period of my life where I feel like I was skinny was from senior year in high school through college. I was skinny, but I was taking diuretics, laxatives, diet pills, and puking."

At a very early age, Rebecca had a great deal of experience with other dieting aides. In the mid-1960s, her mother put her on Seago and Metracal, liquid low calorie meal replacements. Rebecca quipped, "Yeah, that's what my mother's remedy was, to get me to drink these liquid things all the time; I was starving all the time as a child."

In addition to these diet products, there were many other reducing diets that Rebecca tried throughout the years. According to the respondent, she did "any name diet that was popular" and so many diets that she could not begin to remember them all. However, her experience on the Weight Watchers diet did stand out in her memory. She attended this program twice and was accompanied by her mother on both occasions. She also followed the Weight Watchers written diet off and on from the age of 12 through college.

Rebecca recalled that when she first went to this program she was a teenager and she "hated it." Her aversion for Weight Watchers was due to the fact that she felt out of place because she was younger than many of the other participants. The program's caloric restrictions and simplistic format also compounded her negative view. She remembered that she was given a diet with a daily caloric level between 1000 and 1200 calories. In Rebecca's current view, this limitation was clearly "outrageous."

Despite this very low calorie level, Rebecca attempted to stick with this diet throughout her school years and into her late twenties. In fact, if she was not on the Weight Watchers diet plan, she was on some other popular variation of a 1000-calorie diet. Her dieting also entailed a regular routine of vomiting. Rebecca noted that she "worked with her weight" through her mid-to late twenties and managed to maintain between 155 to 165 pounds. Although this body weight was relatively low, she was still unhappy with her body. She commented:

"I went through my twenties, I married young. I was 23, 24 when I got married. I went through that period still sort of working with my weight, kind of going between 155 and 165, and unhappy. I mean, I'd go to cocktail parties and stand by the food and stuff my face and then come home and throw up. So, you're thinking, 'When are

you going to stop that? You're a married woman.' And, so those little messages would go through my head like, 'You know this is good as a child. I mean, this was okay when you didn't have any better sense, but you're supposed to grow up at some point and take responsibility."'

In her eyes, as well as in the eyes of many of the people who knew her, she was more beautiful when she was slender. According to Rebecca, "People would go nuts over me every time I lost weight." Given this positive reinforcement, Rebecca continued to do whatever it took to stay thin. At one time, her desire for thinness even clouded her perspective about life. She explained:

"I got up to about 175 pounds and got really, really sick. That's when I had a tumor on my parathyroid. I had to lose a kidney as a result of the calcium. I had a stroke and was in the hospital for two and a half months and got out weighing 146 pounds. And, believe it or not, I thought everything was worth it because I lost all that weight. I couldn't believe it! I'd stand in front of the mirror and I'd go, 'Oh, my God, I'm so glad I got sick.' I mean, what a weirdo! ...They put me on the scales when I left the hospital and swear to God, it was like, 'All right."

Although being skinny was gratifying, deep down Rebecca worried that her purging contributed to her illness. Because of her concern over her health, she was prompted to stop vomiting at the age of 28. She commented about her decision:

"...I remember the doctor coming in and I said, 'I have a confession to make. I make myself throw-up. Has this caused this [problem] in any way, shape or form? I mean is this why I'm so sick?' And he said, 'We don't know why you're so sick. Certainly that hasn't helped your health at all, but I can't say that your tumor was caused by bulimia.' ...I don't even think they had a word for it then, or if they did they didn't use it."

It was difficult for Rebecca to maintain her weight at 146 pounds after she stopped purging. Within one year of her recuperation her weight crept back up to 160 pounds. Rebecca recollected that her attempts at weight control were more difficult not only because she was no longer purging, but because she had also become pregnant. She remembered that she did not control her eating by dieting or purging when she was

pregnant and by the end of her pregnancy she gained over 40 pounds. She was 200 pounds after the delivery. This was the highest she had ever weighed and this fact prompted her to go back to Weight Watchers.

Unfortunately, the Weight Watcher's program had not improved that much since her teen years. The biggest frustration for Rebecca was the fact that Weight Watcher's staff set extremely unreasonable weight loss goals for her. An additional setback was the program's tendency to take control away from the dieter.

"...Mother again was with me, she said, 'Oh, they even allow you a snack.' And I was like, 'I don't like this. I don't like [being told] what is allowed.' ...I weighed in, I think I reached their first goal. And the thing that made me mad at the very beginning was they set this unrealistic goal for me, and I felt, you know, 'Why am I doing this? I'm never going to weigh 150 or 40.' I mean I think they even set 145, and I knew what it would take me to weigh 145. I mean I would never get there, so I gave up on that."

The goal weight of 145 was a weight that Rebecca had achieved as a younger college student; maintaining this weight often involved extreme measures. Only if she used diet pills, laxatives, diuretics and vomiting could she stay at 145. At the age of 29, Rebecca was no longer willing to take those unhealthy chances. She dropped out of Weight Watchers after two weeks and decided to diet on her own. Within two years, Rebecca eventually lost from 200 pounds to 175 pounds.

Even though Rebecca inherently knew that 145 pounds was an extremely skinny and unrealistic weight goal, she continued to compare her body weight status of 175 pounds to this unachievable and artificial parameter. In her view, 175 pounds was still too heavy and not acceptable. She remembered being surprised by a compliment from an office secretary, who said to her, "You look fantastic, I want to weigh that." She was stunned

because for such a long period in her life she was advised that she should weigh so much less. Quite frankly she thought the woman who paid her the compliment was "insane."

Rebecca maintained her weight at 175 pounds for three years. However, at the age of 33, she became pregnant with her second child. Although she was able to carefully control her weight and gained only 23 pounds during this pregnancy, it was difficult to lose weight after she had her baby. Her body was increasingly resistant to weight loss. It took Rebecca two years to get her weight down to 188 pounds and it seemed impossible for her to get below this weight. She recalled that she was discouraged and that at times she "just did not have the energy to try." She would diet for a week or so using the Scarsdale diet, but then lose momentum. Her weight would go up and down and then she would "do a blitz," eating roast beef, tomatoes and onions for a day or try some other Scarsdale menu for as long as she could stick with it. The Scarsdale plan promised a 20-pound loss in 14 days, but Rebecca was not able to go that long. She decided that she had enough and should see a nutritionist.

"So I went to see my obstetrician's wife who is a nutritionist. And, I would weigh in every week, and she gave me a diet where there were portions, and she set the goals at one or two pounds a week and she wanted me to weigh 150 pounds. And, now that I look back on it, I think she was sicker than I was because she was real strict and she scolded me. I loved it. I mean, it's almost like I loved it because I wanted someone to be really pissed at me for being fat."

Rebecca consulted with this nutritionist for one year and lost down to 163 pounds. At age 38, she weighed more than her counselor wanted her to weigh, but she felt good about her weight status. Yet, maintenance of this status was short-lived because of significant life changes that occurred soon after she lost weight. Rebecca's husband decided to change jobs and relocate the family. She described the negative impact of the decision and what ensued after the move.

"And I was wearing all these really neat clothes. And then my husband decided to move to [name of town], and it just completely whacked me out. I did not want to move. I had a great job, you know, I was finally where I wanted to be weight wise, and we moved, and I just said, '[Expletive], I am not going to diet any more. You know, what is the point of trying to control your life when you don't have any control?' ...So we moved up here, and I stepped on the scales for the first time in four months and I was back to 188. And just really had not dieted. ...I was like, 'I just can't do this.' Just, you know, depressed, really having a hard time making the transition here."

Prompted by the realization that she needed to deal with her new life and a weight relapse, Rebecca consulted with her physician. She decided to seek treatment for depression and weight gain. As a result, she joined the weight control program, IQ Health, at the University of Virginia. She also went on medication to treat her depression.

Things looked up for Rebecca after she made these changes in her life. She had a very positive experience at IQ Health. To a great extent, this positive experience seemed to be due to the program's nutritionist. She was described as very different from her obstetrician's wife and characterized as "very reasonable and non-judgmental."

According to Rebecca, IQ Health's nutritionist showed her "a whole new way of thinking about food." By simply using the Food Guide Pyramid, limiting fat, and keeping records with a food diary, Rebecca noted that she was able to lose weight. This simple plan not only helped with the loss, it demonstrated to her that she could eat up to 2100 calories each day and still lose weight. When Rebecca joined IQ Health in March of 1993, she weighed 205 pounds; by September 1993, she was down to 180 pounds.

However, soon after she lost this weight, Rebecca's brother-in law died. This tragedy affected her deeply and she noted that she just gave up on dieting and trying to "control" her life. Her misfortune was compounded by health problems that made dieting much more undesirable.

Over the years Rebecca has learned to deal with the misfortunes and problems of life. Since her father's death in January of 1999, she has decided to lose weight again. Her reasons for trying again were based on a desire to improve her health and longevity. Health rather than a concentration on weight loss and appearance seemed to be a more effective motivator for Rebecca. At the time of the interview, she was counting her Pyramid servings and had successfully lost from 212 to 203 pounds. She also noted that she was approaching life differently. She was trying to acknowledge that life was full of tragedies, but that life was meant to be lived to its fullest. Rebecca's change in attitude and outlook seemed to be helping in her latest efforts to deal with relapse.

#### MAIN ATTRIBUTIONS FOR RELAPSE

As indicated in her dieting background, Rebecca had lost weight and relapsed many times throughout her life. Although many of her responses about relapse reflect her varied experiences, she tended to concentrate on two more recent relapses. Her most recent relapse experiences occurred right after she moved to a new town and following the death of her brother-in-law.

From the start, Rebecca was able to give reasons for why she relapsed without much hesitation. Her first response was succinct, "The pendulum would swing the other way you know, I would stop starving myself and make up for it." Earlier in the interview she had made reference to what she meant by this statement and the consequences of her restrictive eating, she noted:

"Well, you know, when I was on these kinds of diets, all the foods that I loved, I avoided. I mean you couldn't have potato chips, donuts, or alcohol. ...And, I was just religious. But, I'd poop out by about ---I could never make it to two weeks. I'd poop out by ten days because I would have lost seven or eight pounds, and I'd say, 'Oh, this is great.' Of course, it was all water, you know. And, now when anybody tells me, you know, 'You can't have this.' I'm like, '[Expletive] I'm not going to be on that diet then, I'm not going to do that because I got to have some of my foods."

Emotional eating was the second attribution that Rebecca gave for relapse. She stated, "Every time I gained, every time I gained a bunch of weight, it had something to do with a major life change." Rebecca was referring to a number of tragedies and illnesses in her life that made her feel as if "she had no control." Within the last twenty years Rebecca had been faced with three major illnesses and the deaths of two of her close relatives, her brother-in law and her father. These events and her feeling of powerlessness over them often resulted in her abandoning her efforts to diet. "I just think I can't control any of this, so I'll eat."

She also thought that the unrealistic weight goals that had been set for her over the years were also contributory to her relapses. After all this time and so many dieting attempts, she still wonders what would be a healthy and "reasonable" weight for her. Her inability to reach unreasonable expectations set by program personnel had caused her to "give up."

Lack of exercise was an additional attribution that Rebecca associated with relapse. She was very open about the fact that she found it difficult to make physical activity part of her routine. She commented quite frankly:

"I don't exercise enough you know. I'm not an active person. I mean I have to really say, 'Go to the gym.' I remember you said you parked far away so that you could walk. I would never do that, but you know I've started doing it lately."

Nevertheless, not all of her regain was attributed to these reasons. Rebecca thought that there might be some physiological factors driving her weight and appetite. Rebecca remembered that when she was younger she would eat the same amount or less as her classmates and still gain weight. Perhaps strong genetic influences accounted for her weight, she did not know.

"Yeah, it always seemed like I wasn't eating anything that anybody else wasn't eating. But it always made me fat, particularly in high school. I'd watch these girls just stuff their faces and they were skinny, but I didn't see them all day long everyday. ...So, I don't know."

She commented that her appetite mechanism seemed to be stronger than most people's are and just harder to control. She observed that one of her daughters also had a big appetite and wondered if this ran in the family. Rebecca questioned if their strong appetite was some kind of "obsessive-compulsion thing with food."

#### FASTING DIETS AND RELAPSE

Rebecca stated that the majority of diets she had been on were in the range of 1000 to 1200 calories. The only time she remembered going below this amount was right before she was married. She had gained weight after she bought her wedding dress and her mother strongly suggested that she do something drastic to get back to 149 pounds.

"And we went out and got a wedding dress and it just fit. And, then I started partying, drinking you know ...and whenever I drank, I'd eat a little more. Mother kept saying, 'You know that wedding dress is not going to fit you unless you watch it because I can see that you putting on a little bit of weight.' ...We went out and bought this red, liquid stuff. We went to some, you know, sleazy place to get it like Hollywood Diets or whatever, and then you could have an apple or a grapefruit or something. And, I got down to I think it was 151 when I got married."

This concoction was sickening to Rebecca, fortunately she stayed on it for just a week. Although her liquid fasting experience was brief, she noted that she was "absolutely starving" afterwards. She did not identify particular food cravings after she stopped fasting, nevertheless, she commented that the fast impacted her eating and that she resumed her pre-fasting eating pattern.

"You don't learn anything, they're easier than dieting because you don't have to make any decisions. But then when you finish you have to make decisions, you still make all the stupid ones, or you kind of go the other way, 'Ooh, I haven't had cake for [so long]."

### CULTURAL FOODS AND RELAPSE

Rebecca did not think that cultural foods had an impact on her weight relapse. She did not cook Southern regional foods and did not think that these foods contributed to her regain. While ethnic or cultural preferences were not identified as contributory, Rebecca thought that large quantities of low fat foods were what made her gain.

#### DICHOTOMOUS VIEW OF FOODS

Rebecca noted that she had a dichotomous view of foods. She did not indicate that this view impacted relapse.

#### NEGATIVE AND POSITIVE EMOTIONS

Rebecca identified negative rather than positive emotions as influencing her overeating behavior. The tragic loss of her brother-in-law and personal experiences with sudden and major illnesses had all influenced her feelings about dieting. During these unsettling times, she seemed to feel that all control had been stripped from her and efforts at trying to control food were futile.

"...These tragedies, I feel like I've had more than my share of them. ...And, I just think I can't control any of this, so I'll eat. ... And positive [emotions], I'll celebrate with food, positive things. But I feel most positive when things are in their little boxes, like, my weight is okay, you know, my marriage is okay, all the people I love are okay. And then I just feel like, God, life is great! And, if one of those things go askew, and that's when I eat. Not when it's all going right."

### **GOAL WEIGHT ACHIEVEMENT**

Throughout the years, Rebecca had achieved some of the weight loss goals that were set for her. She remembered that she felt successful after dieting at IQ Health and losing down to 180 pounds. Rebecca, nevertheless, viewed this achievement as a "double-edged sword" because it often precipitated a false sense of security about weight status. She explained how this achievement affected her:

"When I achieve it, I go, 'Oh, gosh, I can go out and live again. I can eat like a regular person.' And I apparently don't. I eat more than a regular person. ...It creeps up, you know. Because this last time with [IQ Health nutritionist] you know I really felt like...I had learned something, and I was doing all the right things, but I think my brother-in law died, I started drinking more. I got in a real slump emotionally. And I don't think I was mindful of what I was doing. You know, I don't think I paid enough attention to [weight] because the next time I weighed, it was like, 'How did I do that?'"

Not achieving her goal weight seemed to be equally problematic. According to Rebecca, not getting to a goal just reinforced her negative self-talk. She often told herself, "You are unable to look like a human being, like everybody else." When Rebecca reflected on this self-talk, she recognized that she was being unrealistic. However, it was difficult for her to free herself of this notion because, she remarked, "But that's what you have in your head."

#### PHYSICAL ACTIVITY HABITS AND RELAPSE

Limited physical activity was a factor that Rebecca acknowledged as being part of her relapse problem. She portrayed herself as not being a very active person. She had to consciously put exercise into her routine when she was trying to lose weight. During her involvement with IQ Health in 1993, she joined a gym and was exercising routinely for 40 minutes a day, four to five days a week. This regimen lasted for about six months but ended when her brother-in-law died. She explained that exercise had not become part of her routine because she was often "derailed" by day- to-day busy life or by feeling depressed.

Another reason that exercise was not part of Rebecca's routine was because it was never emphasized in any of the formal or magazine adopted diets she had tried before 1993. IQ Health was the first weight loss program to include exercise as a treatment

component. Food and calorie limitations were the sole focus of her other diet programs.

#### SUPPORT SYSTEM

During her weight loss and gain experiences, family, friends, and health professionals varied in the degree of support that they provided. Ostensibly, Rebecca's mother seemed to provide positive support for her to lose weight. However, Rebecca observed that the early encouragement that her mother provided may have been mixed up with her mother's own feelings about being an overweight woman.

"...And weight was a big issue. I was the fattest of the children and my parents did not like how they looked, and so they were 'Oh, don't end up like us. Lose weight.' And she [mother] said that I was so miserable, she took me for the diet pills, but I don't remember that. ...I don't remember being so miserable that she had to take me for diet pills. I think that was some of her and some of me."

On the other hand, she thought her father was a "sexist" about body weight. He preferred skinny woman and seemed to only compliment Rebecca when she was thin. His negative view of her overweight may have exerted an influence on her dieting throughout her teen and early adulthood years. She remembered overhearing him talking to her mother and comparing her to one of her teenage friends. Rebecca recalled that he said that she was "so fat and ugly, she would never get married." When she confronted her father he denied meaning what he said. Nevertheless, his words propelled a major weight loss.

"...I was fifteen, but, believe me, I lost a ton of weight. And when I came home from college weighing 129 ... 'God' he just kept saying, 'God damn, you're beautiful, God,' you know, just ecstatic. And after, you know, I would always struggle around, but I was doing pretty good. But after the babies were born, he never gave me a compliment again. He never said, 'Boy you look nice,' you know, or anything like that."

While she summed up her parent's influence on weight loss as being basically "nonsupportive," her description of her husband's influence was different. He was not judgmental about her body weight and was depicted as a loving person. According to Rebecca, he loved her at any weight and seemed neutral in his support of weight loss. Sometimes he would sabotage her diet efforts, yet she thought it was because he was also overweight and periodically felt guilty about not dieting. She, nonetheless, had learned to deal with this problem by just assertively saying "no" to his offers of food or drink. Overall, Rebecca did not see sabotage as an issue and characterized her husband as being a very loving and wonderful person.

Nutrition professionals and weight control program staff provided a mix of negative and positive influences on her body weight status. As previously indicated, the program personnel at Weight Watchers were thought to be influential in subverting Rebecca's achievement of weight loss because they set ridiculously low weight loss goals. On the other hand, the two nutritionists she worked with had opposing philosophies and influences. Their approaches to weight loss impacted her in different ways. The first nutritionist she consulted with was punitive in her approach, set unrealistic goals, and intimidated Rebecca. Although she lost weight successfully during their consultation period, Rebecca was regularly scolded if she did not meet weekly weight loss targets. This dietitian's approach was basically disrespectful. Her unethical style incited defiance rather than cooperation from Rebecca.

Contrary to this approach, the nutritionist at IQ Health was friendly, non-threatening, and did not act "superior" to her client. One of the most critical things she imparted was her healthy view about food. This nutritionist helped Rebecca to understand that food should not be viewed as "good or bad." This lesson seemed to set Rebecca free from a life long way of thinking about food in a dichotomous manner. Finally, this practitioner

was helpful because she avoided setting unrealistic weight loss goals for Rebecca. Her approach was much more democratic; she took account of weight loss "milestones" and together they set goals based on Rebecca's desire to maintain her loss or to lose more.

# **BODY IMAGE**

Rebecca's view of her body had evolved over the years. She thought that her negative view of her body had influenced her relapsing in the past. However, did not talk much about this fact or embellish this response. Instead, she talked about her newer sense of self and body image. Her healthier sense of body image had developed over time. As she matured, she learned how to love her body and appearance regardless of her weight. She attributed this change, in part, to the nutritionist at IQ Health. This practitioner had helped her to see that she was attractive regardless of her weight. She also attributed this change to her own personal growth. She stated:

"But this other nutritionist really impacted in a positive way. I learned a lot about my relationships. I actually find myself attractive even at this weight. ...I mean, men still flirt with me. I just feel like, 'Hey, I'm a big girl, okay.' ...I went to a party the other night with another woman who was skinny, you know, had the model look. And, this guy walks up to us, and you could see him light up when he saw me. He came up, kissed me and then the woman next to me said, 'Oh, don't I get a kiss?' ...And, he was real awkward, and he kissed her. ...You see it doesn't have anything to do with what I look like, it's who I am. And, she taught me that. I don't know if she taught me that, but I've learned that."

#### SLEEP PATTERNS

Sleep was not a problem for the respondent. On the average, she slept seven to eight hours a night. At times, her sleep was restless but her napping made up any deficit in sleep. Rebecca noted that she napped every afternoon because her antidepressant made her sleepy.

### **WORK AND RELAPSE**

Of all possible factors at the workplace, "other women" exerted the most influence on weight gain. She observed that she has always worked with women and "they hate me to lose weight." Whenever she disrupted the equilibrium by losing weight, office sabotage would kick-in. She commented on a typical office scenario:

"Yeah, I'll get down and then people will go, 'Oh, look, I brought you some food. And, it's almost like, 'We don't like it.' It's like Oprah. You know, people don't like it when she gets skinny. ...So you almost feel this ickiness, you know, 'Okay, yeah, I'm on a diet, deal with it.' ...And, I've always worked with women, and I've found that unlike men, who give you all this positive attention when you lose weight, women can be really intimidated by it."

These negative feelings from co-workers were a definite challenge to Rebecca because she commented that she often wanted everyone to like her. Accepting food offers was one way to avoid negative feelings at work. She reflected on how stressful this situation could be and its influence on her eating, and commented, "I'll fall right back into it, and think, "Whew.""

#### RAISING CHILDREN

After the delivery of her first child, Rebecca experienced depression. She was not sure if this was due to the stroke she had the year before, or due to postpartum depression. In any event, she noted that staying home for a six-month period with her first baby seemed to further exacerbate her despondency. While her down moods may have influenced overeating, Rebecca thought that her acquired habit of eating her own meals and eating again whenever her children did, accounted for her weight struggles when her children were small. This particular habit, contributed to excessive intake and intermittent weight gain during those years.

#### WHY THE RESPONDENT PARTICIPATED

Rebecca participated because she thought it was interesting to talk about her experiences with weight loss. Each time she talked about her weight she noted that she learned something more. At one time she began to write a book about her weight experiences. She abandoned the project because she thought that the story line was limited, nevertheless, she still thought that the topic of food and weight were of significant importance. Food, in particular, had always been a compelling force in her life. She noted that both of her daughters struggled with their weight and that the interview process made her think about her experiences as a child. These recollections helped to emphasize the importance of not giving negative messages about body weight to her children or withholding affection from them because of body weight issues.

Finally, she participated because she was curious to see if her participation and the process would lead her to finding out something new about herself or weight. Overall, she indicated that she was happy with the discoveries that she made during the interview. Rebecca commented that she heard herself say positive things about her life, her body and her family. She also realized how much of an impact the IQ health nutritionist made on her. At the end of the interview all of these realizations seemed satisfying to Rebecca.

# **CASE STUDY: ERICA**

I was an infrequent visitor to Erica's workplace, but I noticed that she had lost weight since my last visit. When I asked her if she was dieting, she enthusiastically told me about her Metabolife diet. I thought she might be a candidate for my study because she was so open. When I approached her and asked if she would be willing to participate in

my research project, she was immediately receptive and willing to share her dieting experiences.

#### DIETING BACKGROUND

Erica recalled that she became overweight around the age of 12. She commented that she was "always husky," but by the age of 12, she started having problems finding clothes to wear. Her weight went up to about 150 pounds during this time. Although her weight had increased during adolescence, it wasn't until she was 16 that she started dieting. Her first diet was self-designed and according to Erica it involved "watching her calories, carbohydrates and fat intake." She noted that the reason she decided to create her own diet rather than seek a doctor's help was because she did not like the idea of a doctor telling her what she could or could not have to eat. In addition to watching calories, the respondent commented that she, "basically cut out a lot of junk foods: candy, cookies that type of thing."

Erica attempted to stick with this regimen for an extended time; however, she found it difficult because she did not like counting calories. She also noted that she was "too young to really care about her weight or what others thought about her." Erica stayed with her first dieting effort for about six to eight months. The respondent concluded that this diet routine was not successful because her weight did not remain stable and fluctuated anywhere from 125 to 150 until she was about 18.

By the time Erica was 18, she was more determined to lose weight and to keep from regaining. Part of this determination came from being a little older and more concerned about what people thought about her looks. A budding romantic relationship was an additional incentive for her to lose. She stated, "I started feeling better about myself and I wanted to get rid of the weight." Erica decided to design her own diet and to stick with

it until she was successful. Without too much difficulty, she noted that she lost down to a weight range of 125 to 130 pounds and stayed there from the age of 18 until she was about 25 years old. Her self-designed diet was a little different than her first weight control attempt because it did not involve counting calories. According to Erica, she did not count calories or eliminate foods; she simply cut down on what she ate. She emphasized the fact that she "cut back" rather than "cut out" foods.

The respondent indicated that during this six to seven year period there were brief lapses where she would gain weight because she would get depressed and eat. However, she had a great deal of resolve and managed to get back with her dieting routine after these lapses. Erica commented, "I had set my mind when I was in my early twenties...I was probably 125, 130 and I kept it there for a long time until I hit [age] 25."

Around the age of 25, Erica noted that she gained up to 178 pounds. She initially associated this gain with a happier period in her life. "I gained up to about 178 and I was basically comfortable with life, happy with life, and just happy with myself." When the respondent was asked to elaborate about this later in the interview, she noted the following:

"...I was in a relationship, happy with the relationship. The person accepted me for who I was and the way I looked. So, I was happy with myself. But once I got more involved in the relationship, I wanted to go back down some, and of course, this was in my late twenties, early thirties."

As the relationship progressed, her sense of comfort changed, and she again tried losing weight when she was 29 to 30 years old. Erica did not comment further on what precipitated this discomfort in her life.

During this period of dieting, she noted that she used Dexatrim and Slim Fast for a brief time. She discontinued the use of these diet aids because they made her "too jittery,

too nervous," and she resumed her self-designed dieting plan. This plan merely entailed "cutting back" on large portions. It was effective for her and she commented that within 12 months time she lost down to 150-155 pounds. This weight loss was maintained for a few months until she became pregnant at the age of 31. When Erica became pregnant she stopped dieting because she felt strongly that dieting would not be healthy for her baby. Her weight quickly returned to 178 pounds during the first trimester of her pregnancy.

Erica gained from 178 to about 250 pounds during the course of her pregnancy. She remarked that some of the gain was due to heeding common advice from friends and family about how pregnant women should eat. She recalled that they would tell her, ""You can eat anything you want and as much as you want during pregnancy."" Although she acknowledged that she knew that overeating was not a good idea, she kept on telling herself that she would take the weight off after the baby was born. When she reflected back on this period in her life, she noted that after she had her son things changed. She absolutely wanted to lose weight. Her renewed desire to lose weight this time was precipitated by her realization that it was important to stay healthy for her new baby. The added responsibility of a new child and the demands that accompanied motherhood made the goal of achieving health and longevity more important to Erica. Approximately one year after she delivered her baby she tried the commercial weight loss program called Weight Loss Forever. She was 32 years old and weighed 200 pounds at the start of this diet.

The Weight Loss Forever plan included a high protein diet which was supplemented with herbs. Erica recalled that the plan required her to eat only from a list of permissible foods, but she was unable to remember exactly which foods were recommended or other

details about the program. She did not know the exact caloric count of this plan because caloric content was not emphasized in this program. During a period of one and a half months, while on this program, she lost 10 to 14 pounds. Her weight went down to a range of 188 to 192 pounds. Although she was successful in this brief period of time, the respondent discontinued the program because it was "just too expensive." After a two to three month hiatus without dieting, Erica regained weight and was back to 198-202 pounds.

Her break from dieting lasted for only a few months. By July of 1997 and almost three months after her Weight Loss Forever experience, she was again trying to diet. This time she tried the Calorad program. Her decision to take Calorad was influenced by the convenience of obtaining the product. Calorad, a weight loss supplement, was sold at her office and distributed by an in-house weight control counselor. Erica stayed with Calorad for a "six to eight-month" interval and she lost the 14 pounds that she had regained after she quit Weight Loss Forever.

Despite the convenience of Calorad, she did not remain with this regimen for a long time because the program became monotonous. According to the respondent, she "got bored" with taking the diet aide and felt inconvenienced by the program's strict prescription on when the supplement was to be taken. Although her involvement was brief and her experience less than enjoyable, Erica did not regain her lost weight after quitting the Calorad program. Her weight remained in the range between 188 and 192 pounds. Her will to maintain her weight loss and to be healthy for her young child kept her on the weight loss path. In April of 1999, at the age of 34, the respondent started taking a new diet supplement called Metabolife. Since she started taking Metabolife, she

has lost 15 pounds and reported that she has gone down seven pants sizes and two shirt sizes. Her weight at the time of the interview, August of 1999, was 177 pounds. Her height is sixty-four inches and her goal was to weigh between 130 to 140 pounds. Other demographic details included that fact that Erica is a Caucasian woman, who lives with her boyfriend and is raising her three-year-old son.

#### MAIN ATTRIBUTIONS FOR RELAPSE

There were periods in Erica's teenage years where she fluctuated in weight from 125 to 150 pounds. There were also distinct times when she relapsed, these included: at the age of 25, when she regained from 130 to 178 pounds, at the start of her pregnancy when her weight went from 150 pounds back to 178, and finally at one year postpartum, when she weighed 200 pounds. When Erica considered these periods of relapse, she was concise about her attributions for regaining weight.

"Well, I think back, in my teen-age years, I gained because I just felt like I didn't care. You know, I was going to school, I was hanging out with friends. I didn't care if people liked the way I looked or not. And on in my twenties, probably in my middle, between my early and middle twenties, I think I gained because of depression. I would get depressed about a boyfriend and breaking up, or something would happen in the family, and I would just eat everything in sight. And then before you know it, I had gained back everything I had lost. And then of course, when I got pregnant with my son, everybody tells you, 'Eat what you want. You can eat anything you want, and you can eat as much as you want.' And, I took advantage of that. I did. I ate everything in sight. Because I felt, 'Oh, I'll lose it after I have him.' Well, it wasn't that easy."

Throughout the course of the interview, Erica confirmed these main attributions, particularly, when she talked about the impact of emotions on her weight gain.

#### FASTING DIETS AND RELAPSE

Erica was not sure if any of her self-designed diet plans or any of the commercial weight loss diets she tried had fewer than 1200 calories. According to Erica, the only fasting regimen she had ever been on was also self-designed. The respondent indicated

that when she was about 27 or 28 years old, she put herself on an all liquid fast for three days. Her decision to fast was caused by the "break-up" of a romantic relationship. Erica went for three days without eating and "lived on soft drinks and coffee." When asked to comment on her appetite after her three day fast she stated:

"I went back to eating ...I found out I couldn't eat as much. I would start eating something, and I would either feel sick at my stomach or I would start feeling full. I'd feel like well I've had enough. So I would kind of, you know, back off of it. But I didn't really pick up a true appetite, probably, for about a week after that."

Hamburgers and french fries were specifically cited by Erica as foods that she craved after she came off of her fast. When asked earlier in the interview if she had cravings or difficulty avoiding certain foods while on any of the commercial weight loss programs or any of her self-designed diets, Erica recalled that she had some difficulty sticking with Weight Loss Forever. She associated part of the problem with her mother's good cooking and the constant availability of baked breads, baked desserts and fried foods. She remembered having to tell herself that "You can have one cookie and that's it." Erica added that she does not have the same food cravings or temptations with her current Metabolife diet. She feels as if she can eat when and what she wants. The best part of this diet regimen for her is that it has helped her to naturally limit her intake.

# CULTURAL FOODS AND RELAPSE

Erica commented that she was raised on her mother's country cooking. Potatoes, homemade bread and beans and fried foods constituted the mainstay of her dietary intake when she was growing up. She, however, did not think that these particular foods contributed to her relapsing.

"No matter what kind of food it was, you know, if it was something fried, baked potatoes, mashed potatoes, bread, whatever it was, just having the will power to push yourself away. ...My family was raised [with] 'You eat what you want.' And if you didn't get enough, it's your own fault. So, I would eat anything. It didn't matter what I

ate; I wouldn't stop at one helping."

### DICHOTOMOUS VIEW OF FOODS

The respondent did not have a dichotomous view of foods. She thought that it was her will power or lack of it that made the difference when it came to gaining or regaining weight.

#### NEGATIVE AND POSITIVE EMOTIONS

Although Erica had stated earlier in the interview that when she gained weight at the age of 25 it was attributable to feeling comfortable with her love relationship, she had additional comments when she was asked about emotions and their effect on body weight. Both positive and negative emotions seemed to influence her overeating, particularly in her earlier years, she noted:

"I had very low self-esteem as a teenager and in my early twenties, and if I was dating somebody, and we broke up, it devastated me. ... Then I felt like, well, I wasn't worth much, so I'd eat whatever I wanted. And then there was one guy I dated for like nine years off and on, and it was like I would get comfortable in that relationship, and eat. So, my weight in my early and mid-twenties was going up and down because I was happy with the relationship. But then if something happened to us, I would kind of slack up on the food for a day or two, and then everything would be okay, and then I'd eat again. And with my low self esteem...the boyfriend at the time would tell me, he was a big body builder, and he would always say[when] I'd go to eat a piece of bread or a cookie or something, and he would say, 'Well you are going to gain five pounds from that.' Well, I'd eat it anyway. I'd look at him and say, 'I don't care.' I'd eat it anyway. So it was, you know, I had the negative and the positive no matter. There were times, no matter which one, whether I was down or whether I was up, I'd eat. I didn't like people telling me I can't have this or 'You're going to gain weight from that.' So, I'd eat whatever, no matter what kind of emotion I was in, I'd eat whatever I wanted."

Erica acknowledged that the negative feelings brought about by her resentment over being controlled played a definite part in her past relapse. Yet, emotions no longer impacted her in the same way. As she has matured and developed a different perspective, she was able to handle the emotions and the food.

"Now of course, with my age now and the way I look at things, and the way I think about things, I know how to handle it if an emergency happens, or something gets me down now, I don't eat like I used to. I find myself backing away from food to where I'll be like, 'I'm not hungry, I don't want anything.""

### **GOAL WEIGHT ACHIEVEMENT**

There was a seven-year period in Erica's life where she had achieved and maintained her goal weight of 125 to 130 pounds. Achievement of this goal helped her to maintain a desirable body weight and not regain for a very long time. She described her achievement and her feelings about her success.

"It made me feel better about myself. I liked the way I looked. Of course, when you're a teenager and you're in your early twenties, sometimes you care about what other people think about the way you look. And there's the dating scene. And a lot of it's bad in our society--- a lot of men these days, even back then, they don't want a fat girlfriend. And, back then, that's the way I felt. I was like, 'I want a boyfriend.' ...I didn't want to be by myself. And that helped me reach my goal, and I wanted to maintain that, and I know with my body structure, I couldn't go much lower because it wouldn't look right. And like I said, between 125 –130, at that age, was good for me. Yeah, and I liked that."

#### PHYSICAL ACTIVITY HABITS AND RELAPSE

Physical activity was never part of Erica's daily routine. Walking was one activity that Erica loved, but she acknowledged that she could not find time in her day to do it. She only exercised regularly for a brief period, when she was 24 to 25 years old. This interval was an exception; generally her activity remained minimal during periods of both weight loss and gain. She commented:

"...I was about 24, 25 maybe, I started going to a gym. I started working out with weights. I started working out on the exercise machines. I was losing my weight. I was also toning up. And, I also did that because of the relationship I was in, and then I got to the point where I was bored with that. I felt like I was not doing it for myself, I was doing it for somebody else. So that was the only time up to this point still, I don't exercise."

### **SUPPORT SYSTEM**

Calorad was the only program that provided counseling support to Erica. Minimal support was furnished by Weight Loss Forever. This support consisted of weekly calls from one of the "ladies in the office." The ladies, or non-professional staff, would call to check on her general progress. Neither Weight Loss Forever nor Calorad entailed weekly educational sessions or group counseling sessions. When Erica was asked to comment on her thoughts about the level of support provided by the Calorad counselor, she indicated that the counselor was "very supportive" but that she did not rely on it as a means of support.

"...You know the support is nice, but I don't feel like personally that I need it because I got it set in my mind, and when I put on my clothes, it's like I know I can do this. So, it is nice, but I don't think that I really need it, personally."

The support that was provided by the Calorad counselor appeared to consist of reminders to follow program rules and regulations. There were constant admonitions to weigh, measure and abide by the set times for administration. Erica described the interaction to be tiresome:

"...With the measuring that you're supposed to do, if I didn't do that, she would tell me, 'Well, that's part of that. You're supposed to do that.' So, it was like she was tapping my hand for not doing that. ...I did it religiously; I did it for the first month. Then I got tired of it. I said, 'I'm tired of measuring myself all the time, I can tell in my clothes.' ...That was part of the program with the Calorad, and I just, I think that's part of what got me bored with it too and made me stop that."

Throughout periods of dieting, the support given by family and friends also varied in its degree of helpfulness. Family was not consistent about praising her weight loss progress and tended to be concerned when she ate smaller amounts than usual. Often their concern manifested itself as offerings of more food and this made it more difficult for Erica to maintain her resolve.

"...They have made little comments like, 'Well, you look nice, and you've really lost the weight. You look good.' But I don't hear it that much. I hear more from my friends than I do family, as far as my weight loss. I have a couple of people in my family who are supportive about it and tell me, 'Well, you look nice, and you've really lost the weight.' And they get concerned if we sit down for a meal and I don't eat much, or if I say, 'Well, I'm not hungry.' They might say, 'Well what's wrong? Are you okay?' They can't accept the fact that I'm trying to make myself, you know, improve myself."

Erica did not characterize her fiancé as non-supportive, but she noted that he did not want her to lose too much weight. She thought his concern was due to the fact that trouble began in his previous relationship when his partner lost weight. Nevertheless, Erica did not think that her fiancé tried to undermine her dieting efforts. In fact, throughout the interview she expressed such resolve to get to her goal, that it was difficult not to believe that her determination would prevail over any outside fear or influence.

Friends, especially her co-worker, provided her with the most positive and consistent support. Overall, the respondent thought that in the past two to three years that her friends had helped the most by supporting her weight loss achievements.

### **BODY IMAGE**

Erica's viewpoint about her body image influenced her to lose weight throughout the years. The bathroom mirror and her assessment of how she looked, acted as an impetus for her to lose weight. Overall, her negative view pushed her to continue to diet rather than to lose faith and relapse. She commented:

"...When I would have my clothes off and be in front of a mirror, I did not like the way I looked. That would help influence me to start doing something about it. But as far as putting the weight back on, there was no influence, as far as any part of my body, to put it back on, because I don't like the way it looks."

She conceded that she was currently not as critical about her image, but a larger body image still motivated her to improve herself through dieting. Erica stated, "I can accept myself now, but I know I want to do better."

#### **SLEEP PATTERNS**

The respondent reported that throughout most of her adult life, she slept eight to ten hours each night. Sleep deprivation was not a problem. However, in the past 2 months, she had problems with interrupted and restless sleep. Erica attributed part of her interrupted sleep to the fact that she had to urinate more often during the night. She linked this problem with her increased liquid intake on the Metabolife diet. She also associated her restlessness with stress and worry.

#### WORK AND RELAPSE

Erica portrayed work as a very positive environment. This was mainly due to the fact that her officemate was also a very supportive friend. Her co-worker encouraged her to lose weight and has been Erica's main advocate. Her patients and boss also provided her with recognition for her current weight loss accomplishment. She commented on her co-worker and on her work situation:

"...I've been on my job almost three years now, and she has told me before, 'I wish I had taken a picture of you when you first started here and now.' She is always telling me, 'You need to buy some new clothes, your clothes are getting too big.' She makes a joke out of it. She makes me feel good about it. ...We are just very close friends since I started working. And, she has been a big influence, a big help to me. And even some of the patients, I have, they come and they're like, 'Oh, I can't believe how much weight you lost.' So, that helps. I don't think there is any negative; even my boss made a comment one day about the weight loss, told me how nice I looked. I don't think there is any negative at work as far as the weight loss."

On occasion there was some negative stress at Erica's work environment. Although Erica did not elaborate on what produced tension at work, she did note that it caused her to snack. Her snacking, however, seemed to be infrequent. Erica commented that she and her co-worker had cut back on unplanned eating in the last six months. Part of this cutting back was deliberate because they both wanted to control excess eating, and part was due to being busy and not having time to eat.

### **RAISING CHILDREN**

Child rearing exerted a positive influence on Erica's weight status. She stated a number of times throughout the interview that she wanted to be healthy so that she could take care of her son and see him grow up.

"So, I feel like that [raising a child] has helped me to lose the weight. ...I want to be around to see him graduate high school. I want to see him carry on with his life, and I know if I continue to be heavy, and you know, the high blood pressure and all that kind of stuff, I might not be around. And, I want to be there for him, so I know I need to take care of myself."

Erica did not deny that there was stress involved with raising a child, however, she chose not to deal with her stress by overeating.

#### WHY THE RESPONDENT PARTICIPATED

According to the respondent, her feelings and thoughts about her own weight had evolved over the years. This maturation of her thoughts contributed to her ability to participate in this study. Erica commented that as a younger person she might have been embarrassed to talk about her weight gain and loss. Now that she was older and succeeding with weight loss, she felt comfortable about discussing her weight history. This comfort was one of the reasons why she participated. In addition to these feelings, Erica participated because she thought that more people needed to understand what it was like to be heavy in a society, which she characterized as "rough." "Unless you've been heavy, you don't understand," she said.

# **CASE STUDY: SHELLEY**

A friend recruited Shelley for the obesity relapse interview. Shelley knew little about my project or me, but when I phoned her she was friendly and indicated that she was willing to be interviewed. From the start, she was quite enthusiastic about participating

and scheduled to talk with me a few days after our initial phone contact. At the time of the interview, Shelley was 31 years old, 231 pounds and sixty-six inches tall. She was a single working woman of African –American descent.

### **DIETING BACKGROUND**

According to Shelley she had been overweight from as far back as she could remember in childhood. Not until most recently, however, has her weight been an issue for her. Her current concerns about health and prevention of disease have bolstered her latest efforts to lose weight.

Despite her obese size, Shelley did not have a negative attitude about her weight. She always felt good about her appearance and close friends and family reinforced her positive outlook. Shelley commented that her friends, family, or others might have referred to her as "big-boned" or "healthy-woman," but she did not find this objectionable. She had a healthy outlook and her weight did not become an issue for her until she was 19 years old. The circumstances that surrounded this first diet were clearly unusual. In the following passage, the interviewee candidly recalled that her sole reason for starting her first diet was because her cousin enrolled her at Diet Center and paid for all of her treatment.

"The only reason I did Diet Center at the time was because my cousin was encouraging me, 'Well, why don't you go? I'm willing to pay for it.' Because I could never afford to go to Diet Center. And, the only reason I went [was] because she encouraged me to go and she was offering to pay for it. Other than that I probably wouldn't have. I never had any bad comments. No one ever said, 'Golly, you're big.' I was always, how did they phrase it, 'big-boned' or 'healthy woman.' ...So, nothing that was said to me was very offensive or made me want to change or want to be different."

Despite the unusual circumstances of her Diet Center enrollment, and the fact that Shelley did not initiate this weight loss effort, she lost 60 pounds. Within one year's time, her weight went from 200 pounds to an all time low of 140 pounds. The interviewee attributed her success to the fact that she weighed in each day and was "accounting to someone." She also thought that she succeeded because she had a natural inclination to do well when she put her mind to accomplishing a task. This inclination seemed to assist her even if losing weight was not her idea from the start.

"I knew the next day I had to go in, and so if I ate something that I shouldn't have I know that they're going to know that. And, I was always that type of person who wanted to do well and didn't like to hear, 'Ah, well you know, that's not real good.' I always wanted to hear, 'That's good."

Although she was successful at losing her weight, Shelley's vigilance diminished almost as soon as she moved away from Arizona and the Diet Center. At the age of 21, one year after she lost her weight, Shelley relapsed completely. She regained all of her lost weight and more. The respondent recalled that a number of things accounted for her regain. Key reasons, which she initially cited as causing her regain, included: her return to her family in Virginia, her mother's good cooking and her view of her body.

There were very few dieting attempts after her Diet Center experience. According to Shelley, her dieting attempts in the nine-year period (1988-1997) following Diet Center were less than ambitious. She attempted to diet on her own shortly after her relapse by using some of the foods and techniques that she was taught by the center's staff. She tried to choose foods carefully, and if she snacked, she ate pre-packaged Weight Watchers snacks. Nevertheless, this regimen did not produce any remarkable weight loss results.

In addition to the previously described self-designed diet, Shelley tried a grapefruit diet. She commented that she was unsuccessful with this plan and did not stick with it for very long because she "didn't care too much for grapefruit." Slightly more memorable to the interviewee was her trial enrollment in Weight Loss Forever. In 1994, Shelley tried

this commercial weight loss plan. She came off of this routine after the program's "free month promotional" expired. The respondent could not recall any of the Weight Loss Forever regimen, she could only remember that she took "supplements" during the month that she was enrolled. Her efforts were short lived, and as a result, the actual weight loss results were not noteworthy.

Three years past before she became serious about weight loss; she had reached 270 pounds and in winter of 1997, she decided to join the local recreation center. During the interview, Shelley did not elaborate on her renewed initiative to lose weight. Although, she did mention that her father had suffered kidney failure that year, Shelly did not associate her father's illness with her renewed interest in weight loss. Her extremely high body weight seemed to be her sole motivation.

Unlike her Diet Center experience, her exercise regimen at the recreation center was self-initiated. She routinely took aerobics classes and played volleyball. While she did not deliberately diet, she found that she naturally limited her evening meal intake because she was too busy exercising. Shelley exercised for almost a two-hour period for three or more days a week and lost 25 pounds in six-months. Her weight went down to 245 pounds. This weight, however, was not maintained. Shelley regained her weight when she stopped exercising. In the six-month period following her last exercise class, she relapsed back to her original body weight of 270 pounds.

In January of 1999, Shelley decided again to try to lose weight. Her physician prompted her decision when he advised her that she really needed to reduce her weight because of her compromised health. Shelley took his advice because she respected and trusted him as a medical practitioner. According to Shelley, her physician knew her and

her family and had some insight into factors that were preventing Shelley from achieving overall health. He sent her to counseling and encouraged her to exercise. Shelley was receptive to his recommendations and has continued to follow his advice.

At the time of our interview, in late October 1999, Shelley described herself as being more serious about her weight loss attempts. Part of her renewed initiative appeared to be associated with a better personal understanding of why she overate. This understanding was in part attributable to her experience with psychological counseling. Her counselor helped her understand more about herself and how to deal with her negative emotions. Shelley was also exercising and working with a registered dietitian. This integrated approach to dealing with her weight has helped her lose pounds. In the ten-month period prior to the interview, Shelley had lost 40 pounds.

#### MAIN ATTRIBUTIONS FOR RELAPSE

Shelley experienced a relapse when she regained 60 pounds after attending the Diet Center program, and when she regained 25 pounds after she stopped exercising at the recreation center. In the following comments, she addresses her attributions for her Diet Center relapse. Initially she associated her weight gain with the fact that there was not a Diet Center chain in Virginia. Her ambivalence about losing weight, however, seemed to be a bigger contributing factor.

"...I didn't join another center. There was not the encouragement to continue with this. ...I really didn't want to do this to start with. You know, I was comfortable where I was. So, it was no big thing if I went back there. And then I guess probably the biggest thing was, it was just that I moved away and I got out of the program and didn't continue with it."

On the other hand, Shelley attributed her 25-pound relapse to her cessation of exercise. She commented that she quit exercising because of her work schedule and the tedium of her routine:

"Just different things were going on. Work was getting busier. I had picked up an extra part-time job. It was just that I no longer could fit it in my schedule. And, then after a while, it became monotonous. You know, it was the same old thing. ...I'd play volleyball until about 9:30, 10 o'clock, usually six or seven games of volleyball. It just got to be the same old routine."

Emotions contributed to both of her relapses. Food was a comfort to Shelley and overeating was a way for her to obtain comfort. The respondent candidly talked about food and its ability to console her. In the following paragraph, although Shelley was referring to her 1997 weight relapse, the consolation that food provided seemed to also apply to her relapse in 1990. She stated:

"I remember going through emotional and mental stress during that time. A lot of family issues, and boyfriends and that type of thing. And my comfort was always to eat. I felt better if I ate. If I got upset and my stomach was bothering me, I'd eat because it would calm it down. So I think that's another thing: it [food] was always a comfort for me."

Shelley talked more about the impact of emotions and eating when this specific question was again brought up later in the interview. Her comments are included in the section on emotions.

#### FASTING DIETS AND RELAPSE

The respondent was never on a liquid fasting diet and was unable to comment on appetite or cravings after coming off of a fasting regime. According to the respondent, daily caloric intake was not discussed at the Diet Center. She was unsure if the calorie level was below 1200. Despite this fact, she thought that the Diet Center diet plan contributed to her relapse in some ways because it was restrictive and monotonous in nature.

According to Shelley, the diet plan consisted of eating large amounts of lean high protein foods like chicken and fish and unlimited quantities of fruit and most vegetables.

Certain foods, like bread, corn and tomatoes were restricted. When the respondent was

asked if these restrictions affected her in any way, she noted that she did not really mind the limitations on bread or real foods. However, after coming off of this diet, sweets were the foods that she really craved.

"Food, food, I never had a problem with. It's stuff like your chocolates and your sweets. There were times where I'd want that, crave that. And, if I couldn't have it, I had to find something, even if it was a sweet brownie or a bran muffin or something. I had to have something that had that sweetness to it. But as far as any of the vegetables or anything like that, it wasn't that I missed having them."

The monotony of the diet also seemed to influence Shelley's relapse. She commented on this restricted and tiresome regimen by stating the following:

"I think that it played a part in it [relapse]. I know things got to be monotonous or boring or tiring. I remember eating ...the same foods every day because sometimes it was just, I never was a creative cook, so trying different recipes or something a little different was never me. So, usually I was eating the same old stuff ...I missed having something fried...and I'm sure that once, you know, that I was off that diet ...just being able to eat and just to have that taste all over again in my mouth, yeah, I think that it had some effect on it [relapse]."

Shelley indicated that her appetite was greater after Diet Center. She described experiencing a sense of freedom and rebelliousness that added to her increased intake. When she discussed her appetite after the diet, she noted:

"I think it was greater only because I knew I could eat this meal. You know, 'I'm off that Diet Center. I don't have anyone to answer to. My cousin's not paying for it, so I don't have to do it. Yeah I want something, I'm going to eat it.' I didn't hold back, I ate it. ...It's almost like, 'I'm free now. I can do this. I can eat what I want to eat all over again."

# CULTURAL FOODS AND RELAPSE

Shelley thought that cultural food preferences had a definite impact on her weight relapses. She described her cultural cuisine as consisting of "fried and fatty foods" which she believed contributed to her excessive intake. The fact that her mother always dieted, but then enjoyed preparing traditional Southern foods for her family, apparently played a role in the development of her food preferences.

"...And my mom she was always one to diet, always on some sort of diet, even my sister [was always on a diet]. Even today, they're on some sort of diet. My sister's on Herbalife, I believe it is, or Natural Trim or something. But my mom is a professional cook, I mean, she knows how to cook the food the way it needed to be. But, it was always easier and it always tastes better to fix it the good old-fashioned way, you know."

Earlier in the interview, the tie between family and relapse had been pinpointed when Shelley talked about the impact of returning home after living in Arizona. There seemed to be some mixed feelings. The respondent alluded to both good and bad emotions. Family members or family situations were at times referred to as causing stress. However, when she spoke of her mother's "home," the characterization of home and mother was fondly portrayed. She stated:

"And that's when I started to gain the weight back because there was no Diet Center. And just being at home and being with family and coming from a family that loved to cook, loved to eat, and it was always there, and so I just was always eating. So, I gained the weight back."

#### DICHOTOMOUS VIEW OF FOODS

The respondent noted that she did not have a good or bad view of foods. She thought that potato chips and candy bars were "junk," however, she did not think that there were any foods that were bad for her. For Shelley, the issue that was more problematic was the amount of food she ate. According to Shelley, "too much [food] is a problem."

#### NEGATIVE AND POSITIVE EMOTIONS

Emotions played a part in the relapse scenario for Shelley. Shelley pinpointed negative emotions and boredom as being influential in her overeating. When she commented about the influence of feelings on eating, she talked about the effect of both good and bad emotions and her typical reactions to them.

"I think usually, it's a negative [emotion] for me that causes me to gain. Usually it's something that is just really bothering me, getting me down, or even if I'm bored. If I don't have anything else to do, if I'm sitting in the house and there's nobody

around...or [I] don't do something to occupy my mind, I'll eat."

In the past ten months, Shelley noted that she was working on understanding why she became "down." She commented that her negative emotions were linked to trying to change people, especially family members. Yet, now that she has begun to accept others and view their differences in a more positive light, she reported that she was doing better with her dieting efforts. Her outlook on being alone has also changed; as a result, she was not dealing with feelings of boredom as often.

"I'm more active. I do rappelling and try to get out and mountain climb. ...You know those are the things that I've always wanted to do, but never did them. And [I am now ] realizing that I didn't have to have someone else to make those things happen, I can make them happen myself. So, getting out and being more active and keeping my mind occupied have helped a whole lot; instead of just sitting around the house and not having anything to do, which caused me to eat."

#### GOAL WEIGHT ACHIEVEMENT

The respondent stated that she never achieved the goal weight set for her by Diet Center staff, yet she still felt as if she had been successful. Shelley commented that she could not even remember what that goal was, nevertheless, she got down to a size 12 and was satisfied. Her sense of accomplishment was evident in her statement:

"...I can't remember what my target weight was, but I was at a size 12 and I felt pretty good about it. I didn't care if I didn't lose anything else because never had I been at a size 12 before except maybe was I was a little child. ...It was an accomplishment. I knew I had dealt with a large amount of weight...and I did it. So that was good enough to me. I knew how it felt to be in a small 12. And, I mean that was good. It was a nice feeling."

As time went on, achievement of this sixty-pound weight loss was not enough of an inducement for Shelley to keep from relapsing. The respondent stated that at first she was mindful of the fact that if she regained her weight she would no longer fit into all of her smaller clothes. Nevertheless, not fitting into smaller clothes seemed to be inconsequential.

"...But over time, to me it was still like, 'Okay, I've been there before. I've been this size before ... so it's no big thing to go back to it.' It's like a poor person who becomes rich and they have to go back to being poor. It's like, 'No big thing, because I've been there before, I can handle it.' Whereas, a rich person ... who has never been poor...it would be a little hard on them."

The respondent did not comment on setting a goal weight during her recreation center weight loss efforts.

### PHYSICAL ACTIVITY HABITS AND RELAPSE

There was a distinct decline in Shelley's activity after high school. Shelley noted that throughout high school she was very active. She was on the high school track team and also played basketball. The respondent remembered that her weight stayed at 175 pounds throughout her high school years. She also recalled that she rapidly gained weight after her graduation. One year later, when she was 19 years old, her weight was up to 200 pounds. Shelley attributed this gain to the fact that track and basketball were no longer part of her routine.

Shelley started the Diet Center soon after this weight gain. She became physically active again and jumped rope five days a week for an hour or more. This activity lasted for only a year, and corresponded with the duration of her attendance at Diet Center.

According to Shelley, she did not exercise throughout the period that she relapsed, 1988-1989. Basically, she did not engage in any regular physical activity until she joined the recreation center in the beginning of 1997. There was a nine-year period when she remained physically inactive. In 1997, when she resumed exercising, Shelley played volleyball and did aerobics for a two-hour period, three days or more per week. This routine only lasted for six-months. She again entered a period of inactivity from mid-1997 to late December 1998. In the ten-month period prior to the interview, January 1999 to October 1999, Shelley noted that she was physically active. She exercised two

days a week in a local fitness club. Her two-hour routine combined weight lifting and aerobics.

### SUPPORT SYSTEM

The respondent had varying degrees of support throughout her two major weight loss periods. She had a very neutral or no view of the support provided by Diet Center staff. The support consisted of congratulatory remarks for weekly weight loss. According to Shelley this acknowledgment was important to her, but not meaningful in the long term.

The education program for weight loss maintenance at Diet Center also had very little impact on Shelley. She noted that she attended very few sessions after she achieved her 60-pound loss. Disinterest accounted for her lack of motivation.

"...I didn't look at it [the maintenance program] as helping or hindering it [weight loss]. ... I just wasn't into dieting. I really didn't want to do it. I really didn't feel like I wanted to be there at those educational programs. And the only reason I went was because this was my cousin's money, and I felt like I had to go. And I knew she was going to ask, 'Didn't you go today? Didn't you weigh in?' So I did it because I had to tell her, but I think that if I was serious about dieting, maybe it would have helped me, but I wasn't serious about it."

Shelley explained that her cousin's support for her weight loss did not exert a positive effect on her. Shelley felt controlled rather than supported by her cousin. According to Shelley, her cousin never asked her if she was interested in weight loss. Instead, her cousin just signed her up and expected her to go to the Diet Center.

"...And, I just wasn't ready to diet at the time. And so when I came home, I mean she knew that I was gaining it back, but, it was 'Oh, I'm home, I don't have to do this anymore."

Part of Shelley's relief came from her mother's acceptance. She noted that her mother, "accepted her at any weight". However, this acceptance was not an indicator of lack of support for weight loss. Her mother played a supportive role in her latest diet and helped by cooking lower fat foods for Shelley. The respondent commented that when she visits

at breakfast time on Saturday, her mother serves her fruit and yogurt. These foods replace the usual fare of bacon and fried potatoes.

The respondent seemed to have more supporters than detractors in her current weight loss efforts. She described the nutritionist who presently counsels her as "wonderful".

"And, \_\_\_\_\_ [nutritionist's name] has been wonderful, encouraging me. And I have to answer to her also, but this is different now because I want to do it. This is something I am working towards. I've made up my mind that it's time for me to do it, and I'm going to do it. So, having to answer to her and weighing in and checking with her has been great."

When Shelley was asked if there was a down side to her relationship with her nutritionist, she responded that she did not have negative feelings about their interactions. Her only concern stemmed from her fears of what would happen after she was no longer accountable to the nutritionist. She responded with some doubt in her voice, "When I'm not able to see her and not able to weigh in, will I just go back to eating what I want?" Accountability was clearly important for Shelley.

In addition to the nutritionist, Shelley indicated that her family physician and psychology counselor continued to provide positive support for her weight loss. Her physician seemed to have a gentle way of motivating her to continue to lose weight. According to Shelley, he never pushed her or admonished her, by saying, "'Oh, you've got to lose weight." Instead, he subtlety asked about her weight loss progress and encouraged her to work on it through simple activities like walking. Her psychology counselor also "takes an interest" and routinely checked on her weight loss status and reinforced her progress.

Friends were equally important for the support they provided. According to the respondent, in the past and present, friends and co-workers have always supported her

weight loss. Shelley recounted some of the typical comments she heard from co-workers.

Each of these comments was a boost to her efforts.

"My friends and co-workers, they've been really good. You know, telling me how good I look and to, 'Keep it up.' ... They've even gone walking with me on my lunch break and stuff. So, that has been wonderful. I think the more support you have, the more people tell you that you are doing good, or you're looking good, that's a big thing to you. It makes you feel good."

#### **BODY IMAGE**

As described before, Shelley always had a positive view of her body. She reiterated her positive view when she discussed the influence of body image on weight loss and relapse. In effect, her body image did not propel her to lose weight.

"I don't remember looking down or bad on my body. I don't remember ever saying, 'Oh the reason you can't get a date is because you are so big and overweight.' I don't remember ever feeling like that or thinking like that. I've always tried to dress to accommodate my body, you know, not wearing anything too revealing or too tight. So, I never looked on my body as being something negative."

Her current 40 pound weight loss has simply made her feel more comfortable about wearing short skirts.

"...So, even now the only reason I look at my body being different is because of the clothes I can wear. ...Some of the short skirts that I've always liked to wear, I feel a little more comfortable because I know I'm not going to show everything when I bend over or something like that. ...My body, I don't look at it as being ugly or bad, you know."

#### **SLEEP PATTERNS**

Shelley slept eight hours or more each night. She tended to only have interrupted sleep when she was house sitting. This sleep pattern was an infrequent pattern and associated with sleeping in a different bed and in an unfamiliar setting.

#### WORK AND RELAPSE

Shelley thought that her workload and the concomitant stress brought about by work contributed to her inactivity and irregular meal patterns. She recalled that when she

relapsed in 1997, both of these factors came into play. Lack of exercise and skipping meals were problems. Her busy schedule prevented her from eating regularly and from eating balanced meals. She remembered that she typically skipped breakfast, ate a heavy lunch, snacked a lot and then ate a late dinner or no dinner at all. Meal skipping was not mentioned as a contributing factor in her Diet Center relapse.

### WHY THE RESPONDENT PARTICIPATED

Shelley was cut and dry about her reasons for participating. She agreed to be interviewed because she was doing so well with her current weight loss efforts. She noted, "If I hadn't been doing this well with losing, I probably wouldn't have talked to you, but because I feel better about myself, I don't mind talking about it."

## **CASE STUDY: DONNA**

A mutual friend referred Donna to me. When I first contacted her, she seemed to be a little hesitant to talk about herself and dieting. However, she agreed to participate and she asked if I would come to her home to conduct the interview. Donna was a 40-year-old Caucasian woman who was married with two daughters. Her daughters were in their early teens. At the time of the interview in October of 1999, Donna was attractively dressed and carefully groomed. She was 67 inches and weighed 235 pounds.

#### DIETING BACKGROUND

Donna's struggle with weight started in childhood; at the beginning of the interview, she noted that she had been overweight since she was an adolescent. The respondent recalled that when she was 12 years old she began dieting. The concept of dieting at this age was not novel because according to Donna her mother was always dieting. Donna's attempts, therefore, at following the same carbohydrate restricted regimen seemed

natural. Even though it had been a long time, Donna was able to recall some of the particulars of her first diet. She remembered that the diet restricted her carbohydrate intake to less than 60 grams a day. The most important part of what she remembered was the fact that she was successful on this diet. She stayed on the diet for only a brief period of time, about one and a half months, but she went from a size 16 to a size 14. (Donna did not recall her weight before this diet, she was only aware of her clothing size.) Donna noted that she weighed 145 pounds after dieting and maintained this loss until she graduated from high school.

Overall, the respondent's weight regain after her first diet was a gradual process. When Donna first started regaining she linked "dating and not paying as much attention to calories" as influential factors. Donna remembered that at the time of her wedding, when she was 22 years old, she was up to 180 pounds. While her weight did fluctuate somewhat over time, it seemed to return to this set point weight of 180 until she was in her late twenties. She noted that while she weighed 210 pounds at the beginning of her first pregnancy, at age 27, she lost weight during gestation and ended up weighing 180 pounds again after her child's delivery.

Gradually over the course of the next three years, while she was raising young children, Donna gained about thirty pounds. Donna recalled these years and commented, "And that's the point that I paid no attention to intake and just grew steadily until I was 210 when my second daughter was born." The respondent noted that her experience with weight gain during the second pregnancy was similar to the first pregnancy. She did not gain much weight during the second pregnancy, but maintained this higher weight of 210

pounds after delivery. She stayed at this weight for the next two years, from age 29 until about age 31.

When she reflected on this earlier period in her life, she noted that she was very busy raising children and chose not to focus on her weight. Later on in the interview, Donna also commented that her decision not to diet was compounded by feelings of resentment over the pressure her mother exerted on her to lose weight. Her decision not to diet was her way of rebelling against this pressure. Nevertheless, Donna remarked that as she "matured" she no longer harbored resentment towards her mother's efforts. When she was in her early thirties she decided to diet again.

Donna joined NutriSystem when she was 31; her weight was still holding in the range of 210-215 pounds at the time of her enrollment. She stayed with this program for six months and was successful at weight loss. However, in retrospect she seemed to have mixed feelings about the program. On one hand it brought her success, but on the other hand the program was too good to be true. Donna commented, "It was almost too easy, when they package it up and say, "'You can eat just this during the day.'" Yet, the simplicity may have contributed to her success; Donna lost a total of 35 pounds in six months. She was back to her usual weight of 180 pounds.

The respondent moved to a new town soon after she lost weight. This was the end of her association with NutriSystem. The fact that the program was "horribly expensive" and did not help her "make permanent changes in her eating habits" were in part why she did not continue with NutriSystem in her new town. In a period of 12 to 18 months after she left the program, Donna noted that she had relapsed and gained back 35 pounds. As

time went on, she gained more. NutriSystem was her last full dieting attempt before her most recent effort in 1999.

When Donna was relapsing she was unaware of her exact weight. She explained that she did not have scales to measure her gain. Donna also described feeling a bit rebellious and perhaps liberated about no longer dieting.

"It was pretty gradual. It took another 12 months to gain that back, maybe as much as 18 [months]. Didn't even focus on weight. Matter of fact, didn't even own a pair of scales. It was kind of like, 'Accept me as I am,' type of attitude."

It has taken almost ten years for Donna to develop a renewed interest in weight loss. Part of her motivation comes from her twin sister who has been successfully losing weight on Metabolife, an herbal weight loss supplement. In August of 1999, with her physician's approval, she also started taking Metabolife. She weighed 260 pounds prior to starting Metabolife. However, in slightly less than three months time, from the beginning of August to late October 1999, Donna lost 25 pounds. She weighed 235 pounds when she interviewed, and for the first time in a long period, she was motivated to lose weight.

## MAIN ATTRIBUTIONS FOR RELAPSE

During the age period of 18 to 22 years, the respondent experienced her first relapse; her weight went from 145 to 180 pounds. The respondent relapsed again after her NutriSystem diet; she lost and regained 35 pounds. In both instances, Donna associated her poor food choices and food habits with weight gain. She attributed her return to usual foods and dietary habits as causative factors in her relapses.

"Well, actually I think the cause of both were the same: going back to the same starch heavy diets that we were brought up on. And, once you stop eating either the specialty meals that we would fix with my mom or the prepackaged stuff, the bottom line is that if you don't change your actual eating habits...you'll continually bounce back. And, I think it finally hit me with NutriSystem...actually that's the main reason

I quit. If I can't learn to eat normally or more intelligently it wouldn't do me any good in the long run."

Donna also thought that a decrease in her physical activity after she graduated from high school and after she had her daughters was a contributing factor in her two cited relapses.

"...Moving, becoming reestablished in a new community, as well as taking time off from my career [were reasons for gain]. Until the girls got into school, I think I did more reading and not as much activity. They were too big to take hiking with backpacks and stuff, so we really stopped that portion. We still did a lot of physical things, but not the 20-mile hikes that we would do every other weekend, or hiking the Appalachian Trail, that type of stuff. We no longer had time for it."

Along with decreased activity, other significant lifestyle changes accounted for Donna's attributions for relapse after the NutriSystem diet. A move away from the NutriSystem program and her home, along with a hiatus in her career, interrupted many aspects of her usual life. When Donna was asked if her move to a new town also caused emotional stress, she was forthright in her answer.

"Definitely. When we made the decision to move to [town name] it was one of those really dark periods. And having never experienced those, I don't know, it was a combination of not getting a promotion that I had earned and having two small children, and my husband working some really interesting hours, and we were at the point that I really wasn't going to move to [town's name]. The girls and I were going to stay, and it was literally a week before the move we decided, and during that time, is when I really went up to or stayed up at 210."

## FASTING DIETS AND RELAPSE

The respondent had not been on a liquid fasting diet. She did, however, experience a sense of deprivation while on dieting regimens. Donna commented about the restrictive nature of dieting and how that made her feel.

"I think if you're trying to watch what you eat, you don't and you fall off the wagon, you don't forgive yourself. And, that feeds guilt, and it just makes it that much worse. 'Go ahead and finish that bag of cookies if it's open and you've already done the deed. Why not continue?' ...And, I think if you think you are depriving yourself, it makes you want something more, and you are not going to stop and fix yourself a

salad, you're going to grab the candy bar. It's easier; it's convenient. And, it satisfies you for that bit until you reach for the other one."

Despite her experience with deprivation, Donna recalled that immediately after coming off of the NutriSystem diet, she was satiated with smaller amounts of food. This effect, nevertheless, did not last for a long time. The respondent noted that her appetite "reverted back" in a short period of time.

Physical problems were also noted to be part of the consequences of both of Donna's dieting efforts. In each case, when Donna lost major amounts of weight, her menstrual period was interrupted for extended periods of time. This physiological aftermath was clearly disturbing for her. She described her subsequent visits to her doctor and the associated medical examinations as a "scary, scary, time."

### CULTURAL FOODS AND RELAPSE

Cultural food choices and family food customs played a part in development of habits which Donna associated with weight gain and relapse.

"My family was never, well, never high income. And the majority of meals consisted of red meat and starch. And, being from a large family, one thing I did know was that we ate extremely fast. ...Even on Thanksgiving, everybody was up from the table in 15 minutes. ...And, it's taken years, literally, to slow down to where you realize when you're full, and you can say, 'That's it,' versus looking at that roll [and saying], 'It's going to go to waste,' and eating it. But I guess awareness did not come until 230 pounds. It did take a while and a lot of dissatisfaction to really stop and think what you were doing."

According to Donna, she learned other unhealthy habits from her large family. She remarked that when she was growing up, it was a common practice to pile up your plate when food was passed around the table. This basically was a survival tactic since second helpings were rare. "It [food] simply did not come back around," she stated.

Donna also commented that when she was growing up, her family frequently ate red meat, they did not consume many fresh vegetables, and they drank whole milk. Although

she has made a conscious effort to change these eating choices, it has taken time.

"Because I used to think that if milk wasn't whole, you shouldn't drink it, and now two percent is okay; so it does change with time."

## **DICHOTOMOUS VIEW OF FOODS**

The respondent acknowledged that she did have a list of foods that she thought were good versus bad foods. She viewed potatoes, breads, gravies, red meats, processed foods and soda as "bad foods." Pastas she thought were "borderline" and coffee was basically good. As mentioned to in a previous section on cultural food patterns, some of Donna's views of specific food items changed with time. Red meats, whole milk, and canned vegetables, for example, used to be on her list of accepted foods. Much of this acceptance had to do with her family's cultural food choices. Fresh vegetables, two percent milk and very little red meat are now part of her list of acceptable food choices.

## **NEGATIVE AND POSITIVE EMOTIONS**

Donna thought that negative emotions were more likely to adversely influence eating and relapse. Positive feelings, on the other hand, she thought helped with diet adherence.

"...Whenever you're upset, part of the cycle is to give yourself comfort. And, that comfort food could be mashed potatoes and gravy. ...You search out the comforts which you have known before. That certainly plays a part. ...And, if you are really up and going, it's so much easier to feel good about running out to the garden, and picking a fresh cucumber, and making a nice cucumber [salad]. It's definitely that you have more energy when you are positive and go to the bother of fixing something nice."

## **GOAL WEIGHT ACHIEVEMENT**

The respondent indicated that she had never reached a goal weight during her history of dieting. However, she thought that not achieving a goal weight made it easier to justify relapsing.

## PHYSICAL ACTIVITY HABITS AND RELAPSE

Most of Donna's early adult life involved plenty of physical activity. As she mentioned, this activity declined after she had children. She stated:

"And we'd always be hiking, biking, and we were avid swimmers. When I have tried to write down the activities, it gets more sporadic with age, but especially through the first, through [child's name] birth, it was definitely, at least five miles a day [I would] ride the bike. It was a very big focus. A lot of our dating was hiking and bowling, very, very active. And, that really didn't change until after [second child's name] was born, but we still carried [first child's name] on a backpack and we'd go hiking with the Boy Scouts."

It was also easier for the respondent to engage in physical activity when she was losing weight. She was less likely to exercise when she was in a negative cycle and gaining.

"It's a lot easier to go out and do jump rope with the girls and [I am] more willing to put on roller blades, you know, stuff that you stop when you start feeling uncomfortable. ... Your activity increases, and you feel better about yourself, so you take more care of yourself. It's a good cycle to be in."

In the past, considerations like the weather also influenced Donna's activity habits.

Donna mentioned that seasonal activity was very much part of their routine. If the weather was cold, she was more likely to just walk around the block or just avoid taking the kids out. Popping a big bag of popcorn and watching a movie often took the place of physical activity when the weather was inclement.

For the last 18 months, however, Donna has engaged in regular physical activity. She bikes, plays basketball or walks five times a week for at least an hour. According to the respondent, the results of her increased activity were apparent in the last two months. She thought that her exercise routine in combination with the Metabolife supplement was really making a difference in her weight loss.

## **SUPPORT SYSTEM**

Donna had both positive and negative support over the years for her weight loss efforts. The professional staff at NutriSystem provided her with positive support. She recalled that they offered praise when she lost weight and were appropriately sympathetic when she did not lose. Donna viewed both responses as influencing her progress in a positive way.

Donna was not a regular attendee at the educational component of the NutriSystem program. Therefore, the educational component did not stand out in her mind as being influential with diet adherence or her motivation level.

Immediate family members, husband and daughters, were also characterized as supportive. Their support seemed to be viewed in relationship to their acceptance of Donna's leaner meal preparation. In reference to her husband, she stated, "He's pretty good about eating whatever you put in front of him." She explained that her children also accepted the changes she has made over the past five months in family meal preparation. They were satisfied with diet modifications that included lighter meals consisting of salads, soups, and lean stews. Their acceptance of this change helped Donna adhere to her diet and provided additional encouragement for her to continue to lose weight.

Her twin sister has also provided positive support. Donna and her sister regularly communicated by e-mail and shared their weight loss progress. Her sister's support was "exciting" and "definitely reinforcing," according to Donna.

While most of her current support was positive, Donna explained that in the past, her mother exerted a negative influence when it came to dieting. A large part of the negative influence had to do with her mother's personal struggle with weight loss and relapse. Her preoccupation, as well as her failure, was influential in Donna's opinion about dieting.

"...My mom had started me on diets way back when. One of the big negative things is that's the only thing she ever wants to talk about. ...I was so resentful that that was the only thing she would talk about. I think that's one of the reasons why I didn't try any dieting for that long a period of time...if that's all she can talk about, then she needed to find something else. And, I would turn the subject around which didn't help me, but I guess that I had looked for support there, but there really wasn't [any support]. ... Either you tried to keep up with her or you didn't. 'It never worked for her so why would it work for me?' [I had that] type of attitude."

The mixed messages that Donna received about food and dieting were equally confounding. Donna explained that her mother's advice about dieting was often paired with offers of high calorie foods.

"...I mean she would be talking about diet and setting the stuff on the table and say, 'You know, you shouldn't eat this, it is bad for you.' 'Well, I'm going to eat three of these because she said it was bad for you.' ...And [I was] just looking for acceptance. And, if she wasn't willing to accept me as I am, why keep trying to change it? Part of that was emotional immaturity."

This rebellion lasted for a long time. Donna commented that she was 30 years old before she initiated dieting again. Past instances of diet sabotage from her mother-in-law were also briefly mentioned. Her sabotage, which was manifested by continuous offers of food, was no longer a problem for Donna. The respondent noted that she was able to successfully ignore attempts at subversion from her mother-in-law.

### BODY IMAGE

Donna did not think that her body image affected her weight loss or relapse.

# SLEEP PATTERNS

During the past 15 years Donna has struggled with sleep apnea. She slept for only two hours a night for eight years. This pattern was physically detrimental; the respondent noted that she was unable to function normally and struggled with extreme fatigue.

Donna associated her last "leap in weight" with this sleeping problem. She drank so

many sweetened caffeinated beverages to stay awake that she thought these were a contributory factor in her gain.

For the past nine months, Donna has received treatment for her sleep apnea. At the time of the interview she was sleeping an average of seven to eight hours each night.

### RAISING CHILDREN

Caring for children and making adjustments to their food demands exerted an influence on Donna's eating lifestyle. She noted that when her children were young, she had more high calorie foods around the house. The accessibility of these foods along with changes in choices influenced relapse by affecting Donna's eating behavior.

"...They're so energetic, and you keep more stuff around. Like I would never have white bread in the house except they don't like wheat bread. There are certain things I would get up and fix--- French toast. ...As your're fixing for them, you eat the same thing. You try and guide them, but at the same point, you get tired and you make them that grilled cheese sandwich with three types of cheese."

## WORK AND RELAPSE

Donna did not pinpoint work-related stress as a factor in overeating. However, she did note that after the NutriSystem diet, social factors at work contributed to overeating. According to Donna, during her first year on her new job, she would often go out to lunch with her work mates because she wanted to fit in and to be accepted by the group. The respondent thought that eating out led to excess intake because many restaurant meals were high calorie fast food items. She also thought that her tendency to eat everything on the plate contributed to a pattern of excessive intake.

Donna has not continued with this practice of eating fast food meals at lunchtime. She has been at her job for a while and no longer needs the same sense of camaraderie with her co-workers. Part of this she attributes to maturity and a well-rounded life outside of

work. She noted that she has finally acclimated to her 'new' town and has developed fulfilling relationships in her new community.

### WHY THE RESPONDENT PARTICIPATED

Donna was asked to participate in this study by one of her co-workers. Her co-worker was also dieting and was supportive of Donna's efforts. Donna noted that she agreed because of this woman's support and friendship. She also agreed because she hoped that she would benefit from involvement in the study. According to Donna, she was finally at a point where she was open to finding out more information about weight loss and she was hoping for some tips.

# **CASE STUDY:STEPHANIE**

Stephanie became involved in this project after we met at a party and discovered that we had a common interest in nutrition and weight loss. After a few minutes of chitchat, I told her about my dissertation project and my search for participants; she immediately indicated her receptiveness to being interviewed. According to Stephanie, weight loss and weight gain struggles were completely familiar to her. She had her own story about relapse and was open to sharing this information. I called her a couple of days after we met and we arranged our interview.

Stephanie is a tall woman, 71 inches in height, and is of African American descent. At the time of the interview, December 1999, Stephanie weighed 205 pounds. She was 43 years old and married with two children.

## **DIETING BACKGROUND**

Stephanie, unlike most of the women previously interviewed, was not overweight as a child. Her problems with weight gain began after her first pregnancy, approximately 13

years ago. She gained 50 pounds during her pregnancy in 1986 and since that time has struggled with excess body weight. Up until 13 years ago, she had always maintained a perfectly healthy weight in the range of 165 to 170 pounds. Now if she did not diet, her weight systematically returned to 210 to 215 pounds. This was the weight she reached at the end of her first pregnancy and seemed to be a body weight set point. Despite her body's comfortable set point level, she wanted to get back to her usual weight and has been dieting on an intermittent basis since 1986. Sometimes her weight loss attempts were full blown, like enrollment in commercial weight loss programs, and other times her efforts were what Stephanie referred to as "little attempts in between".

Her first diet started a few months after her first child was born. She and her husband went on this weight reduction regimen together and stayed with it for about a month. It was a weight loss diet that she heard about at her office. The diet entailed eating chicken and lots of vegetables each day but restricted bread and fruit intake. The respondent recalled that for some odd reason the diet also emphasized consumption of string beans and beets. According to Stephanie, the daily calorie level was not severely reduced and averaged approximately 1700 calories.

The respondent stayed on this diet for only a month. Many factors like a busy lifestyle, work, and a small child prevented her from continuing. After this short period of dieting, she lost 10 pounds and weighed 200. Notwithstanding her decision to stop this routine, she noted that she did not stop dieting altogether. According to the respondent, she always made an attempt at "managing her weight" because her medical history of high blood pressure and high cholesterol served as constant reminders to her not to gain too much weight.

There were many small dieting attempts after 1986. However, Stephanie noted that she did not start back in full force until 1991, when her husband went off to fight in the Gulf War. She joined the Diet Center while her husband was gone. This diet seemed to fit her lifestyle.

"...What I liked about it, I think, was even though you were supplemented, and you were given a list of things that you could eat, they had specific products that you could buy for snacks. ...And, during that time my husband was away in Saudi Arabia, so I didn't have any distractions about what to cook and how to cook it, so I could be focused on just that."

This diet routine suited Stephanie and she was quite successful; in three months time her weight went from 210 pounds to 185 pounds, just ten pounds away from her usual college weight. As she recalled specifics of the Diet Center diet, she noted that she took lots of vitamin pills, particularly B vitamins. However, she was not quite sure about the other supplements she took. She was aware that her caloric intake was approximately 2000 calories a day. With regard to other aspects of the program, educational support was limited. Weigh-ins and videotapes comprised the bulk of the formal education and support component.

The respondent maintained her weight loss for three to four months. However, approximately four months into her weight maintenance, her husband returned from the Gulf War. As a result of his return, Stephanie remembered "falling back into some of the same old patterns." Old habits, her husband's food demands and a return to her usual lifestyle were all identified as reasons for weight relapse.

She tried to control her weight from 1991 to 1999; in spite of her efforts, she relapsed to 230 pounds. This weight gain propelled her to join Weight Watchers in January of 1999. The Weight Watchers program worked for Stephanie, she commented that she

lost over 31 pounds in six months of engaging in "faithful participation." She attributed her success to Weight Watcher's food exchange or point system. It helped her learn to manage food.

"...My weakness is sweets, and I don't care what, I just have to have them: a piece of cake, a muffin or something like that. So that [point system] did help me to manage them a lot better because I wasn't deprived of it. I would just have to eat more fruits or more something else to compensate for that."

Even though Stephanie attributed so many positive characteristics to this program, she noted that after 6 months she "abandoned "Weight Watchers and just "got off track." At that point in the interview, Stephanie did not give any additional reasons for quitting Weight Watchers.

In October of 1999, three months after her Weight Watcher's diet, Stephanie was back on a worksite weight control program that was sponsored by her new employer. The worksite diet was called the Joe Dylan Program. It was a high protein/low carbohydrate diet that included two protein shakes containing vitamin and mineral supplements and one high protein/low carbohydrate meal per day. Plenty of fruit was encouraged for inbetween snacks. Stephanie did not know how many calories were in this prescribed plan, but thought that the calorie level was probably very low.

Initially she noted that she was doubtful about this diet because it was so rigid.

However, Joe Dylan, who pitched the program to her and her workmates, made an impression on her. She decided to try the plan because of this impact and commented about her decision:

"...And I was skeptical about his program because it is so rigid, but at the same time the results were unbelievable. Now of course this man is like 60 some years old and two percent body fat, which I know is not possible for me. ...I do enjoy some things and eating is one of them, so I'm not prepared to drink shakes for the rest of my life. But what he was saying about sugars and how they affect you did make a lot of

sense to me. So, I was willing to try that, because, again, the concern for blood pressure, cholesterol. I know that weight management will make a difference even though I have to take the medication for the blood pressure.

...So, I was hesitant about it because of the lactose intolerance problem that I have. And his shakes are based on that, but since I can get lactose-free milk, I was willing to give it a try. And, I've met with a lot of success with it. I've lost in that time period about 17 to 18 pounds."

At the time of the interview, Christmas week 1999, Stephanie was back down to 200 pounds. She was feeling a little apprehensive about the holiday season because of all of the additional celebrations and associated food contacts. Yet, she told me that she was ready to get back on track. She hoped that the interview process would help restart her momentum and put her in the right direction again.

### MAIN ATTRIBUTIONS FOR RELAPSE

Based on actual weight loss and regain, Stephanie relapsed once, and that was after the Diet Center diet. Her weight went from 210 to 185 pounds and then rebounded to 230 pounds. Stephanie lost 31 pounds on the Weight Watchers Diet, but only regained 17 pounds; this was not considered a relapse. In spite of the technical definition of relapse used for this protocol, similar factors influenced her gain after Diet Center and Weight Watchers. Family lifestyle and cultural food choices were asserted by Stephanie to be the primary reasons for her relapse after the Diet Center diet and her weight gain after the Weight Watchers diet. Stephanie listed reasons for her relapse in the following comments:

"I think the biggest one is just my family's lifestyle, primarily. You know, my husband likes old-time, old-fashioned cooking, and for black folks that usually means grease, fat, and loads of it. So, that is a major issue for me. I have to actually just block all that out and prepare things that are healthy for me and hopefully start integrating that into the meal for the entire family. Now that is going to be a very challenging thing to do, but for us all to be successful at this, I think that's it."

Stephanie also thought that her career was a culprit in her weight gain. In three months after quitting Weight Watchers, she explained that she had quickly put back 17 to 18 pounds. Much of this regain she thought was attributable to her previous job.

"The other [reason] is just the type of career that I have. It opens itself up for a lot of evening meals, evening dinners. ...During Weight Watchers, even though I lost the weight early in the program...I was very much involved in the budget process, which meant meals all during the day, all during the night, that I didn't prepare and had no control over. The alternative would have been just as bad: running to a Burger King or a Macdonald's or somewhere because there wasn't enough time between work and starting out for another meeting to go home and prepare."

After citing these major reasons as contributing factors to her relapse, Stephanie asserted that her initial attribution about cultural factors was predominant in her relapse.

"...But again it's cultural more than anything else for me. Brought up in the South, you know, you're loaded down with fried this and ...certain foods, you know, white rice. I know when I fixed brown rice for the first time, they went, 'What is that?""

## FASTING DIETS AND RELAPSE

The Joe Dylan diet was the first fasting diet that Stephanie had ever tried. She drank a shake for breakfast and lunch and then had a meal at dinner. She was unsure of the total caloric level but thought it was probably "very low." All of her previous dieting regimens included three solid food meals and contained more than 1200 calories each day. Stephanie voiced some concerns about this fasting routine:

"...I think that when you're deprived of certain things, when they start creeping back into you diet, then pretty soon they're going to become the mainstay of the diet. So, I'm a bit cautious with the Joe Dylan Diet because it is so restrictive."

Stephanie experienced food cravings on all of her weight reducing diets. This effect existed regardless of the caloric level or fasting nature of the diet. Stephanie described how these cravings affected weight gain and relapse.

"Well, with all of them, I think, once you get to the point where you say, 'I've got

this licked now,' you might maintain for a couple of weeks, and then the cravings. ...I think more of the things that you shouldn't eat you eat; just brings [it] on more and more and more. And suddenly you find yourself back to where you were before."

"Staying off track" was an integral part of the problem that Stephanie described. Once off the dieting track, she found it hard to get back. Part of the difficulty she encountered had to do with some of her self-talk. She would tell herself that she would exercise more if she ate too much, but getting to the gym seemed to pose another obstacle.

While Stephanie knew the down side of deprivation; she also knew how good it felt to lose weight. She was willing to stick with the Joe Dylan Plan because she appreciated the benefit of quick results. Although Weight Watchers was less restrictive, it had its setbacks. Hitting a weight plateau was one of them.

"...I think I am probably more successful with diets where I'm not restricted...maybe [it is] just the constant reminders of the good things to eat and how to manage it, like Weight Watchers. If I had continued with Weight Watchers, I probably would have been able to maintain...but it's those plateaus too, you know, where you get to a certain point and you just stay there no matter what you eat or what you don't eat."

As we talked, Stephanie focused more on the issue of hitting a weight plateau and its impact on relapse. The fact that she could not get below an unyielding weight caused her to lose motivation and to eventually quit Weight Watchers. In addition to the initial attributions that she had about relapse, Stephanie added "loss of motivation" to her reasons for relapse.

### CULTURAL FOODS AND RELAPSE

The respondent identified cultural influences as impacting her relapse problem. Fried foods and higher fat foods were preferences that she had to contend with each time she dieted. She did not add much to this topic beyond saying that, in spite of any diet

restriction, certain food preferences ran deep. "I will eat fried fish regardless of what Joe Dylan or anybody says."

### DICHOTOMOUS VIEW OF FOODS

The respondent had a definite list of "good and bad" foods. According to Stephanie certain cuts of beef, like rib-eye steaks, were high on her list of "bad foods." Cheese, yeast rolls, cakes with lots of icing and sodas were also included in this list. She characterized fruits, vegetables, chicken breasts, turkey and turkey breasts, and seafood as "good foods."

## **NEGATIVE AND POSITIVE EMOTIONS**

Stephanie thought that there was a correlation between negative emotions and overeating. Stress frequently caused her to eat too much. Nevertheless, these "binges" were often abbreviated by her self-talk and images of her obese great aunt. Her mental images of how she would look if she continued to "binge" often counteracted her overeating. She recalled that images of her overweight aunt often prevented her from totally falling off the dieting wagon.

"Well, I think there's a direct correlation for me at least. Under very high stress situations you tend to eat. But at the same time, I'll get to a point where ... something will trigger inside of me and say, 'You have the propensity to be a lot larger than what you are, and if you continue to eat and eat like this, you are going to become a very huge woman.' And, that is something that has been in my mind probably as a child because I had an aunt, or great aunt, who was very, very large. And, I look a lot like her. So everybody would always tease m, 'Well, you're going to be as big as Aunt so and so.' So that has always been in my mind and triggers me, and it's probably my greatest fear that I will be."

The preventive effect conjured up by images of her aunt did not totally diminish the influence of stress on her eating. Stress was still pinpointed as "having a tremendous effect" on Stephanie's ability to "manage" her weight. When she was busy or had

deadlines at work, it became more difficult for her to control her eating habits. Stephanie was hopeful that she would change this pattern and handle the stress at her new job because it was not as intense as her previous job. The flexibility of her new job and the benefit of a wellness program had already alleviated her previous problems.

Unlike negative emotions, positive emotions made Stephanie feel good and were not noted to be contributory to overeating. Positive feelings gave her a sense of control.

Stephanie explained that positive thoughts and emotions made her simply feel good about being "in control of this yo-yo."

### GOAL WEIGHT ACHIEVEMENT

Stephanie achieved her set weight goal of 185 pounds after attending the Diet Center; she did not achieve a goal after the Weight Watchers program. According to the respondent, not achieving goal made it easier to relapse.

"Well, by not doing it certainly led to relapse. Again it's what happens when you get to those plateaus, as I understand it, and if I can't break that plateau and see a decrease, then I'm not motivated to continue with it. I may get to the point of saying, 'Well this is the best I can do.' ... And be comfortable with that, and with that comes falling into the same old traps again, and next thing you know [Stephanie uses a sound to demonstrate falling]."

Although getting to a goal made Stephanie feel good, it wasn't enough to prevent relapse.

"Well certainly, when I got down to the 185, I felt extremely good. And even when I got down to 199 on the Weight Watchers [diet], I felt good because there's a definite difference in my appearance. Yeah, clothes fit better. You feel better. People comment and compliment you on how you look. So, the relapse happens and sometimes it's not enough to necessarily make me stop doing what I know I should not be doing until I get to another level again. Then I'll say, 'Whup, too much.'"

In each instance, with Diet Center and Weight Watchers, Stephanie regained after a three to six month period. As she noted, regaining to a certain "level," or the relapse itself often pushed her to get back on the dieting bandwagon. Criticism from her husband also

played a role in resumption of her weight loss efforts. Stephanie commented that her overweight husband would call her "Fat Momma." She noted that his name-calling made her so mad that it was enough to "turn her around" dieting-wise.

## PHYSICAL ACTIVITY HABITS AND RELAPSE

Activity was always part of Stephanie's earlier lifestyle; she routinely exercised until she had her first child. The birth of her new baby changed her priorities. According to Stephanie, her new baby added a dimension to her life which made it difficult for her continue to take care of herself.

"...Pre-pregnancy I was very active...I played tennis, rode a bicycle, worked out in the gym, on the track and so forth. All of that spilled over from my college experiences. After the baby was born all of that stopped. But, there just simply wasn't enough time, or I didn't make the time, you know, to look after myself. I had this brand new baby here, knew nothing about mothering, and [was]completely refocused on taking care of her."

The respondent's physical activity did not resume until after the birth of her second child in 1988 when she was 32 years old. She started walking with her husband on the local track and did this three times a week for a few months. Unfortunately, her renewed exercise routine was short lived.

"...But that didn't last too long because family just, you know, when you are working and you've got a family to take care of, it just takes away a lot of that time. Or, to restate it I guess, it causes you to refocus on family as opposed to self."

As Stephanie's children got older, she was able to "focus" on herself a little more and she became more active. Although she did not maintain a set exercise routine for a long time, she managed to have intervals where she would get more physical activity. These times tended to correspond more with periods of relapse than with weight loss. She commented that while she did not exercise during her attendance at Diet Center, she did start working out after she had completed Diet Center and was gaining weight. Exercise

was her solution to reversing weight gain. Yet, she became discouraged because she found that although she firmed up, it did not reverse her pattern of gaining.

"When I was relapsing and going back up, then I started exercising. ... I won't call it a health club, but at a gym, I would go religiously. And it helped, but it wasn't substantial weight loss like I had with the Diet Center. What it actually ended up being was more firming back up. .... I exercised for quite a period of time. I think it was six or seven months. ...And, I really didn't want to go back to the Diet Center. There I had to show up, you know, with the weight back on. So, I just didn't want to do that. That's why I didn't."

The respondent explained that she was "too embarrassed to go back" to Diet Center after she had gained weight. She never returned. She engaged in very little activity during the next five-year period between her Diet Center and Weight Watchers diets. Stephanie attributed part of her lack of exercise to back problems. She had tried doing aerobics and similar activity but stopped because of her back.

In early Fall of 1999, towards the end of her Weight Watchers diet, Stephanie began to exercise again. She was motivated to do so because she was beginning to gain back weight. She was also encouraged to do so by the employee wellness program. For the first time, she was successfully combining exercise, aerobics and weight lifting, with a weight reduction diet. The pro-wellness stance of her current job also helped her to adhere to a three times a week schedule of exercise.

## SUPPORT SYSTEM

Stephanie identified her husband and her family as her primary support system. She relied on her children, ages 11 and 13, to tell her the "truth" about her weight. She characterized them as being very honest. Their observations about her weight served as a gauge of her progress and therefore were helpful. According to Stephanie their remarks kept her on track with her diet. Her husband also provided positive support when she was losing weight. But at times when she was gaining, his remarks, were a source of

aggravation. Despite this aggravation, Stephanie was able to handle negative support.

Ultimately, criticism was something she seemed to take in stride; it did not cause her to rebel and then overeat. It helped to push her to succeed. And, when she succeeded all members of the family were positive in their support.

"My support system focuses primarily on my husband and my family. You know children will tell you the truth, so they will tell you, 'Well, you're losing weight. You look good, Mommy.' Or, 'Mommy you've gotten a little fatter, haven't you?' ...So, I gauge, I guess, where I am depending on their comments. ...My husband tends to tease a lot, and it really aggravates me when he calls me 'Mama Cass.' Now, that really tears me up, but that sort of spurs you to lose, and then when I start losing, don't say anything about Mama Cass. And, he'll make mention of 'Well, it looks like you are losing weight."

The respondent commented that her husband's criticisms ended when she was losing weight. It appeared that he was careful not to have the tables turned on him since he did not want to be reminded about his own struggles with weight. "See he doesn't say too much when I'm losing because he's probably thinking I'm going to drag him into it," she commented good-naturedly.

Stephanie had other sources of support from family and friends. The support that

Stephanie received from her mother was uncomplicated and a source of pure positive
reinforcement. Stephanie explained that her mother used to be a very petite but was now
obese. Whenever she noticed that Stephanie was losing, she complimented her and
according to the respondent, she said, "Gosh, you've lost weight, tell me what you
did?" Her comments always motivated and inspired Stephanie to succeed. Friends and
co-workers were also positive in their support. Unsolicited comments about her improved
appearance also provided a boost in the positive direction.

The impact of the support provided by weight loss programs in the past varied.

According to Stephanie, Diet Center had a limited educational and support situation. It

was more of a commercial business where support was limited to a weigh-in and a pat on the back. Extended education or motivation was just not part of that program, and therefore not something that she relied on for continued success with her maintenance of weight loss. Weight Watchers, on the other hand, provided Stephanie with education, motivation and support. The respondent thought that these elements of the Weight Watchers program were critical to success.

"Well with Weight Watchers... when I would stop going to the participant sessions, that caused me to just probably stay off track.... I think if I had continued to go to those sessions where you get a lot of motivation, you hear about what other people have been able to accomplish, and you're saying, 'Well, that is me, because I've lost one pound or two pounds or three pounds.' ...And then there's an educational component, and you could share recipes and experiences and things like that, so that in and of itself just kept you motivated, kept you on track. ...Yeah, I need the motivation. Because if I don't [get it] I will relapse, that's been proven, shown."

#### **BODY IMAGE**

Body image was a factor that Stephanie definitely thought played a role in her weight control vigilance. She was tuned in to when she was gaining and losing by simply looking at her reflection in a mirror. She explained that the mirror served as another "gauge" of her body weight. An extra roll of fat around her stomach or fullness of her face was enough to get her back to dieting.

"If I see it, then I'll say, 'Oh well, I've got to do something before it expands.' Now I used to always have a problem with my face, you know. When I was down to 185, my face was very slim. And even throughout these processes [referring to her current fast] it hasn't gotten as slim as it was. ...So, that's also a measure, to see it's puffiness."

While extra body fat and fear of looking like her aunt were enough to trigger her to continue to lose weight, the respondent did not think that negative body images ever caused the opposite effect. A negative image did not discourage her and lead to overeating.

## **SLEEP PATTERNS**

With the exception of the last few months, Stephanie noted that she had restless and interrupted sleep for the past 5 years. She attributed her restless sleep to her own snoring and her husband's work schedule. Her snoring frequently startled her and caused her to rouse and then have irregular sleep. Her husband's night shift schedule also influenced her sleep habits; she was more likely to stay up late when she was home alone. During this 5-year period when she was experiencing these sleep difficulties her weight increased to her maximum of 230 pounds.

## **RAISING CHILDREN**

Pregnancy was the start of Stephanie's weight problems. She had two children and with each pregnancy, she had difficulty getting back to her pre-pregnancy weight.

However, beyond the accompanying physiological aspects of pregnancy, the demands of caring for children also influenced Stephanie's body weight status. As she explained, her total "focus" was on her children's care. Her own exercise needs and overall health needs took a backseat to the demands of her children.

"Well, it's very easy to relapse when you are caring for kids because you are totally, at least I was totally, focused on their care and not on my care. It's very easy with young children to do that. ...But it does take you completely out of your routine, and it's very easy to snack with them. ...Everybody wants to go to MacDonald's or wants French fries, and you just go on and on."

Stephanie reflected on this situation and wished that she had established healthier snacking and food habits for her children and herself. It sounded as if she always had good intentions, but just not enough time to seek out solutions. Now that her children were older and she had more time, she was able to take better care of herself.

## WORK AND RELAPSE

Work compounded Stephanie's busy lifestyle in the past. The demands of the job and long work hours were difficult in many ways. She explained that not only was there stress and a lack of time to exercise but that food was part of the work environment. There were so many evening meetings where snack foods and catered meals were provided; avoiding food was difficult.

"Those particular jobs did not afford you the kind of benefit that I have this time with this job, which is to exercise. But the lifestyle was quite different. It was demanding, very stressful, a lot of night meetings where dinner was served and good food around you all the time, and sodas and cookies and all kinds of stuff during these meetings."

Although the environment seemed to sabotage Stephanie's efforts to lose weight, she did not think that her co-workers were not supportive. She had a very positive view of past and current workmates. In her previous jobs, she noted that she exercised with friends from work and that her boss attended Weight Watchers with her for a brief period. Her boss remained supportive of her weight loss even after he dropped out of the program. In her current job, many of her co-workers were involved in the Joe Dylan program, and as a group, they provided support and motivation for each other.

# WHY THE RESPONDENT PARTICIPATED

Stephanie believed that she would benefit from this project by just "hearing" herself talk about her own experiences with relapse. She also agreed to be involved with the project because she hoped she would pick up helpful information and tidbits on weight loss maintenance.

### **CHAPTER V**

#### CASE STUDY ANALYSIS

The case study analysis is a review of the eight accounts of relapse. This analysis elucidates the individual nature of obesity relapse and also demonstrates the diverse aspects of the problem. This analysis summarizes the distinct attributions that were emphasized by the respondents and focuses on the main attributions offered by the respondent as being influential in their relapse. The analysis also includes the author's observations and interpretations. These observations are not intended to be a final interpretation of obesity relapse, but rather to offer further exploration of the relapse experience.

Main attributions are organized into categories in this analysis. These categories are based on key phrases and ideas that came forth from the respondents during the interview. "Negative Emotions" and "Food or Drink Habits" are examples of some of the major categories that were used in the analysis to organize attributions given for relapse. A complete list of all categories is provided in Table 3 at the end of this chapter.

Table 3 was included in order to show how the categories were developed and organized. This table provides a list of the original categories that were used in the case studies (Chapter IV); the case study categories were based on the Interview Guide questions and one emergent category (dichotomous foods). Table 3 also provides a list of categories used in this case analysis chapter. These categories were developed after the interview and case study content was analyzed for main relapse attributions. As suggested by Covert (1977) and Patton (1990), word clusters, phrases and concepts from the respondents were used to develop categories for each of the cases. For example, "Low

Self-Esteem" was noted by a number of the respondents to be a major reason for their relapse. Thus, their words and main attribution, Low Self-Esteem, was used as a category. Categories were repeatedly refined to encapsulate phrases or concepts that represented a similar attribution across different cases. The category, Negative Influence of Practitioners, illustrates this process. It was derived from comments and concepts of various respondents about the treatment received and relationship with weight control counselors.

Table 3 also lists the common themes/patterns that were identified as contributory to obesity relapse. All of these common themes are discussed in the cross-case analysis (Chapter VI). These themes represent the common ideas present in a grouping of similar categories. For example, case analysis categories such as, parental push to diet, rebellious overeating, negative influence of practitioners, and sexual abuse all possessed a common element which entailed the loss of personal choice. These categories were subsumed under the identified theme: <a href="Impact of Having Personal Choice Taken Away">Impact of Having Personal Choice Taken Away</a>. This theme was identified as one of the common themes that fit in the relapse scenarios of six of the eight respondents. Table 3 and the cross-case analysis (Chapter VI) provide a complete list of the six themes commonly represented in the case analysis.

## **CASE ANALYSIS: GEORGE**

George's interview responses were contradictory. She often talked in incomplete sentences, jumped from topic to topic and seemed reluctant to delve into her attributions beyond those that were genetic/physiological. I struggled with my own frustration at not getting a straight answer from the respondent, but as I went back to her tape and reread

the transcript numerous times, my frustration was replaced with a better understanding of George. She felt as if she had been blamed for her obesity and also stigmatized by it; the interview was influenced by her experience.

## **PHYSIOLOGICAL FACTORS**;

Throughout the case study George seemed intent on ascribing her history of relapse predominantly to physiological factors. She noted that, except for brief periods, she was always chunky as a child. Furthermore, she associated her "morbid obesity" with a history of "yo-yo dieting and a slow metabolic rate." Despite this stance, her allusions to overeating, depression, and other viable causes came out frequently.

"...However, it's been in the last ten years and a lot of eating and what have you on my part, and also discoveries in the field of medicine that I see that I'm probably never going to be thin. And, I think it's genetic...but I think that it's not in my control totally. And the only control that I have on it now is to keep from gaining more."

Although her statements were sprinkled with conflicting concepts, such as overeating versus genetic predisposition, George was not willing to explain the overeating contradiction when I asked her directly.

The possibility that her obesity and subsequent relapses were largely due to genetic factors was at first a plausible argument. George's weight history bore out convincing facts. She was "chunky" throughout most of her childhood. She also had three pregnancies that could have reset her body weight set point and put her at further risk for future weight control problems. In my assessment, she had many physiological markers; however, she also alluded to factors that were not solely genetic or physiological. Her story, like many of the others, was not one-dimensional.

It became apparent after listening to George for over two hours that she also had many factors that contributed to relapse. On our first encounter, she was not ready to talk about

any circumstances which would indicate personal responsibility. George made fleeting references to depression, low self-esteem, overeating, inactivity, and many other factors, but assigned each of these less of an important role in her relapses. Genetics and a slow metabolic rate, she maintained, were the major cause of her relapses.

Many of her comments were in the third person--- they were always about 'other' obese people. I struggled with all of this confusing information, yet George laid her cards out on the table. She stated frankly:

"And at least intellectually, I don't think this is my fault. I'm probably more content in my life than I've ever been. I used to be a terrible depressive ...and I'm not suggesting for a moment that I don't hate being fat. I think being fat in this society is as bad as being, as difficult as being crippled, as being black, as being retarded. I mean, I think you pretty much get the same flack. And the only difference, in fact, it might have been worse because at least people don't blame you for that."

Clearly, a lot of her avoidance could be explained by her own admissions: the stigma of obesity, her desire not to be "blamed" and her sense that she was asked to interview because she was a "failure."

"I mean, if I had said no, it would have suggested that I was feeling badly about being fat, which I am. By nominating me to do the study means I'm a failure. ...It's to protect me from myself. 'I'll show you, I don't care.' That's probably why I did it--- a safe guess."

## **NEGATIVE INFLUENCE OF PRACTITIONERS**

Given George's feelings about being "blamed" or a "failure," it eventually became apparent to me why it was difficult for her to openly address personal factors that may have influenced her relapse. Her experience with a weight counselor illustrated her indignation and her reticence. She denied that a weight control counselor influenced her weight status, yet his possible influence on her weight loss and morale were a focus of her interview. In my observation, he may have hampered her progress. She noted:

"...And, the third time I did it [fasted], and I did not cheat one iota because by this

time I had learned my regain lesson and the whole works. After 3 months of it, I lost about 8 pounds total, and that was with exercise, and then I had that wretched counselor who was with Optifast. He was terrible and should not have been allowed to do it, at least with me. ...He was somehow brought into counseling, whether he had any degrees or not I don't know, but he was dealing with a bunch of women who were a whole lot smarter than he was, and he never gathered that. And he couldn't understand why they weren't needy and grateful to him, but they were thinking circles around him."

### FOOD OR DRINK HABITS; DECREASED PHYSICAL ACTIVITY; NEGATIVE EMOTIONS

In spite of these setbacks and her initial reserve, George did acknowledge other factors besides physiological ones that contributed to her relapse experience. This acknowledgement came about when we had two more encounters after the interview. We met briefly when I delivered the case study to her and then again when we talked on the phone about the draft. Her reaction to the case was conflicted, "it seemed to be all mixed up," but she was not really ready to set it straight. She penciled in some of her thoughts about why she regained weight. She included overeating, emotions and lack of exercise but did not elaborate on how or why when asked. Her correction to include emotions and overeating were surprising to me because throughout the interview she portrayed these factors as playing a small part in her relapse. I was also surprised because, while she initially characterized herself as a "depressive," she was hesitant to associate negative emotions with her relapse experience. However, some of her early suspicions and reticence may have abated after my second contact with her. She was willing to allow that other factors besides physiological ones played a part in her relapse, yet resistant to any further probing. I had to respect the boundaries she drew.

Despite some oblique responses, when I reflected on George's case, I realized that she had provided ample information and given me valuable insight into obesity treatment.

What she had shared could conceivably help other practitioners.

Basically, George was not ready to acknowledge a significant part of her role in weight gain. This may have been part of her relapse problem. Direct acknowledgment, may have helped her to lose some of her weight and keep it off. She was also resentful about mistreatment by a weight control counselor. Her story and this resentment made it clear that an ineffectual therapist can hamper weight loss and have a far-reaching affect on the course of relapse. Finally, her remarks about failure, blame and prejudice were also powerful and relevant to her overall story of relapse. It brought up the need for nutritionists/counselors to be aware of sensitive areas when treating overweight clients. Pat recommendations to take an aerobics class or go to the gym may be very difficult for the client who feels stigmatized by overweight and too self-conscious to start working out.

# CASE ANALYSIS: SUE

Sue was an open book when it came to describing her experiences with relapse. She had always been overweight and dieting was part of her lifestyle. Therefore, talking about herself and diets was easy. Her first serious diet started when she was 15 years old. At 15, and three more times throughout her adult life, she lost close to one hundred pounds. Sue was only 46 years old, and in her lifetime she had already gained and lost almost 400 pounds.

As Sue talked, it was evident that all of the good feelings associated with losing weight were terrific motivators, however, these factors were not enough to prevent regain of weight. There seemed to be other powerful factors in her life that caused her to overeat and drink and to give up on her walking program. The stress of caring for her family

members and the depression that came along with this responsibility, a false sense of security about her weight loss, and a desire to be free were all effective deterrents to weight loss maintenance.

# FREEDOM FROM RESTRICTIVE DIETING; FOOD CRAVINGS; PHYSIOLOGICAL FACTORS

Sue frequently commented about her desire for freedom and it was expressed in her habit of "socializing" and "doing what she wanted" after she lost weight. All of the diets she was on entailed some type of caloric deprivation. Her average caloric intake was usually 1200 calories a day and typically emphasized forbidden foods. Sue's desire to break free and no longer be food or alcohol deprived seemed to be a natural aftermath of this type of deprivation. After coming off of her diet regimes, she tried to control her cravings by allowing herself to gain a limited amount of weight after each successful dieting effort. However, this plan always backfired.

Sue's attributions for relapse did not focus on physiological factors. However, I thought that these factors might have been an integral part of her relapse problems. She was overweight/obese since childhood and she also gained 110 pounds during her first pregnancy.

## FALSE SENSE OF SECURITY; FOOD OR DRINK HABITS

She noted that she always played a five to ten pound gambling game after she lost a lot of weight. This game was brought on by a false sense of security about her large weight loss and a faulty notion that she could start eating and drinking again without major consequence. Nevertheless, her intake of food and alcohol always exceeded a moderate amount. Both potentiated a loss of restraint, leading to a lapse and ultimately an

irreversible relapse. In the following quote, Sue described her behavior after a fast, her 'gambling' pattern and her lapse.

"I was eating ice cream a lot, not a little bit, but by the pint because I really craved ice cream. So, it was like, 'Okay, now I can do it. I've lost ten pounds, now I can eat it.' But, I put it back on real fast."

Although she had learned the lessons of this gamble too many times, she persisted in taking chances. In another instance, Sue commented on regaining after she lost 120 pounds on her TOPS diet. The mind games she played and her desire to be free, figured prominently in her explanation.

"...I felt like I had lost all the weight and now I had time to play with it. Usually you could say that you got five pounds to play with. Well, I felt like five pounds would be all that I wanted, but I kept eating and eating and going out and doing things with my friends, and I started drinking. And, of course, the alcohol will put it on really fast, and I just started doing that. And, that's what happened, and I just lost it. I gave it up; I didn't care anymore. I got to do what I wanted to do."

Her desire for freedom seemed to extend to her belief that unconditional love was a way for her to overeat and live without consequence. Freedom and a false sense of security also came from her view that once you had a "special person" in your life, "you could do what you wanted." And, "doing what you wanted" always seemed to translate into overeating and drinking. Sue noted:

"...Then got married and got off my diet because I figured that once you have somebody...you don't have to stay on diets any more because you can do what you want to do as long as you have that special person. They should stick with you no matter what."

#### LOW SELF-ESTEEM; POOR BODY IMAGE

In her first marriage, Sue seemed to be naively disappointed by the fact that her husband did not unconditionally accept her body weight. However, her second husband did "stick by" throughout many fluctuations in her weight. While his unconditional acceptance gave her the freedom to eat and drink, Sue was left with an inherent conflict.

She did not seem to approve of being overweight and this struggle appeared to be a factor in her relapse history.

Sue's conflict about body image and her low self-esteem appeared to drive her dieting efforts. A need for approval from friends was an additional impetus for dieting. Her struggles with weight gain seemed to be tied into her own desires to be free, yet her dieting behavior was driven by a desire to look good and to be acknowledged for her appearance and weight loss accomplishment. When Sue discussed her relapse after her TOPS diet, she commented that she ate and drank more because of disappointment in herself and feeling depressed about regaining.

"And I feel bad because I look in the mirror and I realize how much weight I've actually put on. And, it makes me even more depressed. And, then I'll go and get a big shirt, and put it on, and then it looks like I've lost weight or I'm hiding it. So, I feel okay. So, it's like, 'Okay, now I can go do what I want to do. I can go out partying tonight.' ...But then you take it off; it's there. And, it makes you more depressed. And the more depressed I get, I think the more I eat."

## NEGATIVE EMOTIONS; FAMILY RESPONSIBILITIES AND DEMANDS

Negative emotions, such as depression and stress, played a large part in her numerous relapses. When she was obese, she linked her depression with her self-image. But, to a great extent, her depression and stress were precipitated by her family situation. Sue described how her worries over her twenty-one year old daughter contributed to her relapse in 1990:

"...We had a lot of problems with her, you know, school and stuff. And, I started putting on the weight with her, being stressed out, didn't care. You work everyday, come home, and there are problems. And, you try to handle them yourself and you can't. And then you give up and say, 'Okay, I'm going to have a mixed drink or a couple of mixed drinks.' And, [you] sit down and eat a pizza by yourself."

Sue's daughter has continued to rely on Sue and her husband for financial and emotional support. Sue has been a primary caregiver for over twenty years and has had a

difficult time asserting her own needs. She is now raising her grandson and ultimately has the responsibility of trying to keep two families together. At times, this burden seemed to be overwhelming for her. She felt guilty for feeling anger and resentment towards her daughter. Sue literally swallowed her feelings and turned to alcohol and food to ease her stress.

Stress management, physical activity, assertiveness and food moderation versus restriction were topics that Sue never mentioned as being highlighted in any of the formal weight control programs that she attended. In my assessment all of these would have assisted her in weight loss maintenance. One could only dream of the possible difference it would make in her life if a little bit of all of the above were broached.

## CASE ANALYSIS: EILEEN

When I met Eileen I thought that there was something distinctly girlish and vulnerable about this 53-year-old woman. Yet, she was also assertive and purposeful about her reasons for participating in this study. She agreed to participate because she had a unique story of relapse. Her relapse and attributions were associated with a history of sexual abuse. She commented that events which led to relapse, had little to do with a lack of "will power." As her story unfolded it was clear that few of my interview probes would help trigger anything close to Eileen's attributions. None of the common factors like raising children or diet deprivation touched her reasons for regain. On the other hand, fear of being attractive and the use of food and drink for comfort were her primary attributions for relapse.

#### SEXUAL ABUSE; PHYSIOLOGICAL FACTORS

Eileen was referred to me by her psychotherapist. Her candor and ability to talk about her life experiences seemed to be influenced by the progress she was making in her therapy. Sexual abuse, by her grandfather and a family friend, had seriously affected every aspect of her life. Weight gain at the age of eight years was just one manifestation of this mistreatment. Serious obesity and relapse in adulthood were additional indelible marks of this abuse.

Eileen did not focus on her excessive weight gain during her two pregnancies.

Nevertheless, this physiological factor seemed to also contribute to her relapse problem.

For over forty years or more, Eileen had been on innumerable diets. On two occasions she was very successful, she lost between 50 and 60 pounds in 1980 and lost about the same amount again in 1994. Notwithstanding these weight loss achievements, she quickly relapsed after both of these diets. After her first relapse, she noted that she naively chalked her regain up to a "lack of motivation." Only after a considerable period of time did Eileen realize that both relapses happened purposely. According to Eileen, her introspection came from the last 14 years of continuous psychological therapy. Through this counseling work, she began to understand her motivations and why weight regain was so easy for her. Fear was one of her biggest impediments. She commented:

"I mean I obviously have not been motivated out of fear. I mean, I'm afraid...both times that I started to put weight back on was when somebody, a male, would say something like, 'Well, gosh darn it, you're really looking good now. And it was just like, 'Oops, I don't want to do that, I don't want a man to act that way toward me.' ...When a man says that to me...that would just trigger all the old tapes, and I would go get a pizza. And, then it would start all over again, 'Hurry up put it back on. Put it back on. Hurry up and put it back on.' I didn't understand, but I certainly should have known better. I'm not stupid."

#### LOW SELF-ESTEEM

Her analogy of using her body "as armor" also highlighted her uncomfortable feelings about being normal weight. In this passage she referred to the fact that her father's expectations and her history of abuse compounded her self-esteem problem as an adult.

"...So, I pretty much learned that I wasn't perfect and that I wasn't worthy, and then through my adult life by making bad choices in men, I reinforced all those ideas that I had about myself. I was in very physically and verbally abusive relationships, which reinforced all of the things that I felt about myself. ...I am still using my body as armor to keep people away and to keep men away."

#### FOOD OR DRINK HABITS

Overeating and drinking were not only a way to protect herself from interested men, but also a way to "comfort" and "anesthetize" herself from the series of physically and emotionally abusive relationships that were referred to in the previous passage. Her need to protect, comfort and anesthetize herself combined with her love of cooking and socializing. All of these factors made weight gain and relapse a certainty.

"I'm a good cook, and part of it is just because I started so young. ...I didn't think I had any areas of creativity...that was one of the ways it came out. And, so I would cook something that tasted so good there was a certain amount of a buzz that I would get. ...I felt more at peace I guess. It would sort of calm, well, probably anesthetize. ...And, then the more I ate, the more satiated I would become, or then I would be real sleepy and go to sleep."

Eileen's own introspection and knowledge of why she failed at weight maintenance facilitated this analysis. Although many of the respondents were open and honest about their situations, few had thought much about their own motives and reasons for repeat failure. Eileen seemed to be on target about her problems, yet she was still struggling with a solution. These struggles were evident when she commented about her recent loss and quick regain of 20 pounds. A fear of looking too attractive and her fear of leaving her

current relationship all came into play to sabotage her. It seemed as if the only way she could convince herself to lose weight was to concentrate on the healthy effect of weight loss on her high blood pressure or diabetes.

Superficial analysis of her case could lead to the conclusion that inactivity, overeating and drinking caused her relapses. Technically that is true, but the age-old equation of 'calories in versus calories out' is far too simplistic an explanation for Eileen's case. Her history of sexual abuse and its long lasting effect on her self-esteem, body image and her body weight cannot be dismissed. This case study provides additional insight for nutrition practitioners who may chose to chalk all weight gain up to "too many calories and not enough exercise." Clearly, in instances where sexual abuse is part of the client's history, nutritionists and allied practitioners need to be attuned to the possibility that abuse is a factor. Nutritionists need to become educated to carefully explore other non-food-related reasons for weight gain and to offer constructive assistance.

## **CASE ANALYSIS: REBECCA**

Rebecca was overweight since she was a child. From a physical and emotional standpoint, her strong familial history of overweight made her struggles even more difficult. Both of her parents were overweight and they had a strong desire for her to be thin. They simply did not want her to "end up" like them, and so they encouraged her to lose weight. Rebecca learned at a very early age not only how to diet, but that parental love and acceptance were tied to her body weight. Her relapse story evolved from this early scenario. Rebecca's own introspection, her professional training as a counselor and her honesty enabled her to quickly identify factors that were contributed to her relapse

story. Powerful factors like restrictive dieting, a false sense of security, food cravings and struggles with "loss of control" added up to a life long problem with overweight and relapse. Her acute appetite, a substantial weight gain after her first pregnancy and lack of exercise clearly potentiated the struggle.

#### PHYSIOLOGICAL FACTORS; PARENTAL PUSH TO DIET

Rebecca's mother influenced her dieting practices at a very early age. When she was 12 years old, her mother took her to the pediatrician for a diet pill prescription. Rebecca took diet pills from the age of 12 until she was in her mid-twenties. Her mother also encouraged other dieting methods when she was young and gave Rebecca liquid meal replacements, Seago and Metracal. As a young child, Rebecca became skillful at losing weight and made the appropriate adaptations to insure that she stayed thin. She discovered that diet pills and purging were the guaranteed way to control an otherwise untenable weight problem.

"I have been overweight ever since I can remember and unhappy about it ever since I can remember. I started fixing that myself when I was 12 years old by making myself throw up. I didn't recognize it as anything bad. I thought it was a pretty good idea.

...My mother said I was unhappy as an adolescent. I don't remember how painful it was, but she said I was so unhappy as a seventh grader. Apparently, I had ballooned at puberty into 180, and I was five-foot two, so that's pretty hefty. ....So, she took me to the doctor's, my pediatrician, and he prescribed diet pills at--- I was either twelve or thirteen. And, frankly I took diet pills on and off until my senior year in college.

...I mean the diet pills really worked, along with other strange things I was doing to stay skinny. The period of life where I feel like I was skinny was from senior year in high school through college. I was skinny, but I was taking diuretics, laxatives, diet pills and puking."

Rebecca was able to sustain the routine that she had established to stay thin until her late twenties. When she experienced a serious illness at the age of 28, she decided to reject unnatural methods of weight control. Her desire to have a healthy pregnancy a year later further prevented her from taking diet pills or purging. Rebecca never turned back

on her decision to stay healthy. But there were body weight consequences. She gained from 146 pounds at age 28 to 200 pounds after her first pregnancy. After her second pregnancy, at age 33, and numerous weight control attempts, her weight fluctuated between a low of 163 and a high of 212 pounds. Although pregnancy was not given as a main attribution for relapse, this physiological factor seemed to contribute to her weight struggles. Despite concerted weight control efforts after her first pregnancy, it was difficult for her to get back to her pre-pregnancy weight. At the time of the interview, she was almost 47 years old and she weighed 203 pounds. Rebecca's battle with weight control continued.

# FREEDOM FROM RESTRICTIVE DIETING; FOOD CRAVINGS; REBELLIOUS OVEREATING

Throughout her life, there always seemed to be a parental push behind Rebecca's dieting attempts. Rebecca's mother accompanied her to Weight Watchers on two occasions. She viewed this ostensible support with mixed feelings and commented, "My mother was always there for me in a good and bad way because I always felt she loved me more if I was skinny." Her father also seemed to love and praise her more when she was thin. He could be very critical and rejecting of her body size, however, he approved when she was slender. She commented, "And, when I came home from college weighing 129, 'God,' he just kept saying, 'God damn you're beautiful.'"

Although the parental praise that came along with success influenced Rebecca's desire to be thin, it may have also aroused a feeling of resistance in Rebecca. She never stated that she used food or her body weight to deliberately fight back against her parent's desire for her to be thin. However, she acknowledged resisting any formal weight control program or counselor that took freedom and food choice decisions away from her. And,

almost every diet or weight control program did so. Most of her diets entailed a strict regimen of certain foods and a severely limited daily caloric level of 1000-1200 calories. Initially at Weight Watcher's she was instructed to stay on a 1000-1200 calorie diet. Not only did Rebecca think that the format was simplistic and silly but that the food limitation was "outrageous." When Rebecca was asked to identify her attributions for relapse she was able to point to factors like deprivation, a false sense of security and rebellion.

"Well you know, when I was on these kinds of diets, all of the foods that I loved I avoided. I mean you couldn't have potato chips, donuts, or alcohol. ...And I was just religious. But I'd poop out by about---I could never make it to two weeks. I 'd poop out by ten days because I would have lost seven or eight pounds and I'd say, 'Oh, this is great.' Of, course, it was all water, you know. And, now when anybody tells me, you know, 'You can't have this.' I'm like, '[Expletive] I'm not going to be on that diet then, I'm not going to do that because I got to have some of my foods.""

#### NEGATIVE INFLUENCE OF PRACTITIONERS

Throughout most of her dieting experiences Rebecca worked with weight control counselors who advocated deprivation. This was evident in the information that she relayed about her Weight Watchers' and was most obvious when she talked about her first experience with a nutritionist. Rebecca commented:

"So I went to see my obstetrician's wife who is a nutritionist. And I would weigh in every week, and she gave me a diet where there were portions, and she set the goals at one or two pounds a week and she wanted me to weigh 150 pounds. And, now that I look back on it, I think she was sicker than I was because she was real strict and she scolded me. I loved it. I mean, it's almost like I loved it because I wanted someone to be really pissed at me for being fat."

When she enrolled in IQ Health in 1993, Rebecca had her first experience with a nutritionist who was respectful and reasonable. This combination of attributes helped Rebecca lose weight. Rebecca noted that the nutritionist did not prescribe a severe calorie level, classify foods as "good or bad," or focus on deprivation. She simply encouraged a balanced and moderate intake of 2100 calories a day and worked with

Rebecca on setting small attainable weight goals. In addition, she advocated physical activity that was enjoyable. This practitioner's approach helped Rebecca to lose from 205 to between 183 to 180 pounds.

## FALSE SENSE OF SECURITY; FOOD OR DRINK HABITS

While overeating and rebellion were obvious reactions to her deprivation, a false sense of security after losing weight also caused problems. A return to her usual overeating habits also caused weight gain. Rebecca addressed these issues in the following quote about weight loss achievement.

"It's like a double edged sword. When I achieve it I go, 'Oh gosh, I can go out and I can eat like a regular person.' And, I apparently don't, I eat more than a regular person."

### NEGATIVE EMOTIONS; FAMILY RESPONSIBILITIES AND DEMANDS

Losing weight and keeping it off seemed to signify a sense of control for Rebecca. From early adolescence, she learned that her bulimia was an assured way of maintaining a level of control. Now that she no longer engaged in purging, control was more difficult to attain and maintenance of weight loss was always at stake. Rebecca observed that every time that she gained major amounts of weight in her life, it had something to do with a major life change and not feeling in control. Illness and tragedies seemed to be part of her life and to influence her emotional status. Rebecca recounted that within less than 20 years she had suffered a stroke, had been diagnosed with melanoma and had other maladies like gallbladder disease and a hiatal hernia. Occurrences of illness and tragedy also affected her immediate family. Her husband had a heart attack in his midthirties, her brother-in law died a very premature death and her father had just died.

"Yeah, these tragedies, I mean I feel like I have had more than my share of them. These huge...like somebody cuts you off at the knees. And, I just think, I just can't control any of this, so I'll eat."

Negative emotions, brought about by feeling as if others were taking away her control, or that she simply had no control over life's tragedies, caused Rebecca to overeat and relapse on two occasions. At age 38, and soon after losing 35 pounds, her husband decided to change jobs and move to a new town. This caused a significant amount of upheaval in her life.

"And I was wearing all these really neat clothes. And then my husband decided to move to [name of town] and it just completely whacked me out. I did not want to move. I had a great job, you know, I was finally where I wanted to be weight wise, and we moved, and I just said, '[Expletive], I am not going to diet anymore."

Negative emotions like depression, which was brought on by the sudden death of her brother-in –law, also made her give up on trying to control her life. After losing 25 pounds at IQ Health in 1993, Rebecca again relapsed.

"...I remember saying, 'I cannot do all this.' So, I just gained it all back, and that was easy because 183 is so close to 200 anyway. ...I got into a real slump emotionally, and I don't think I was mindful of what I was doing. You know I don't think I was paying attention to [weight] because then the next time I weighed, it was like, 'How did I do that?"

#### DECREASED PHYSICAL ACTIVITY; APPETITE

Rebecca also believed that her natural inclination not to exercise and her strong appetite contributed to the development and maintenance of her overweight status. IQ Health was the only weight control program that emphasized the importance of physical activity. Over the course of 35 years of dieting, she only maintained a steady routine of exercise for 6 months.

Rebecca thought that perhaps her overweight was linked to a "strong appetite mechanism." She recalled that when she was a younger child in boarding school she would compare her intake to other girls. It seemed as if she would eat the same or less

than her classmates, and still gain weight. Both of these factors, inactivity and a strong appetite, seemed to exacerbate her weight problems.

By the conclusion of the interview Rebecca acknowledged problems related to her relapses and noted that instead of "dieting," she was working on achieving a healthy body status by focusing on moderation and trying to cope with the highs and lows of life. A few of the women in this study had articulated a similar stance, which involved a concentration on health versus dieting. The goal to achieve health seemed to be less punitive than dieting and a more forceful motivator.

## **CASE ANALYSIS: ERICA**

Erica's story of relapse seemed to be the most uncomplicated. She openly identified emotions and her weight gain during pregnancy as her main attributions for relapse. She, like the majority of women interviewed, had a predisposition for overweight. Erica noted that she was "husky" from the age of 12. However, she did not initiate her first diet until she was 16 years old. Part of her reluctance to diet had to do with being a teen and being a bit rebellious. She stated that she simply did not care what other people thought about her appearance. When she was slightly older, 18 years old, she decided to stick with her own self designed dieting routine. Self-consciousness and a romantic interest influenced her decision. Erica lost from 150 pounds and maintained a normal body weight of 125 pounds until her mid-twenties.

For the past nine years, from age 25 to 34, Erica has fluctuated between a low of 125 to a high of over 200 pounds. Her attributions for relapse are both physiological and psychological. Erica pointed to a large pregnancy weight gain, and the power of both

positive and negative emotions on her body weight status. Overeating, as a means of rebellion, was also part of her earlier relapse problems.

#### **POSITIVE EMOTIONS**

"Being comfortable with life, happy with life and just happy with myself," were all of the factors that Erica first associated with a relapse when she was 25 years old.

Apparently she felt secure with her romantic relationship and weight gain was not an issue. This comfort level and initial acceptance by her boyfriend may have contributed to her lowering her usual guard about food and dieting. Her weight fluctuated during a seven-year period from 125 pounds to 178 pounds.

"...So my weight in my early to mid-twenties was going up and down because I was happy with the relationship. But then if something happened to us, I would kind of slack up on the food for a day or two and then everything would be okay, and then I'd eat again."

#### REBELLIOUS OVEREATING: LOW SELF-ESTEEM

Although good feelings may have influenced her relapse, Erica also overate as a means of rebellion. She clearly resisted when others tried to enforce control over food. She recalled that she rebelled when she was 16 and her physician tried to enforce calorie counting and a strict food regimen. She also rebelled again in her mid-twenties, when her boyfriend tried to oversee her intake.

"...And with my low self-esteem...the boyfriend at the time...he was a big body builder and he would always say, I'd go eat a piece of bread or a cookie or something, and he would say, 'Well, you are going to gain 5 pounds from that.' Well I'd eat it anyway. I'd look at him and say, 'I don't care.' I'd eat it anyway. ...I didn't like people telling me I can't have this or, 'You're going to gain weight from that.' So, I'd eat whatever, no matter what kind of emotion [mood] I was in, I'd eat whatever I wanted."

Rebellion was not limited to these two instances. When she worked with the Calorad diet counselor in 1997, she became discouraged because she felt as if she was always being

"tapped on the hand" to comply with unimportant program components. Ultimately, Erica quit the program because of the counselor's authoritarian technique.

Exercise was never an integral part of her lifestyle or her weight control regimens. In only one instance, right before her relapse at the age of 25, did she regularly go to the gym and lift weights. But this routine was short lived because of her dislike of outside control. She realized that she was exercising for her boyfriend. "I felt like I was not doing it for myself, I was doing it for somebody else."

#### **NEGATIVE EMOTIONS**

The respondent dated for lengthy periods but never married. At the time of the interview she was involved in a more stable relationship and a marriage was planned for Spring of 2000. Up until this point, it appeared as if her relationships were not secure and this factor really impacted Erica's emotional status and eating behavior. Negative emotions like low self-esteem and depression, brought about by "breaking up" with a boyfriend frequently set the stage for overeating habits and relapses.

"I had very low self esteem as a teenager and in my early twenties. And if I was dating somebody and we broke up, it devastated me. ... Then I felt like, well, I wasn't worth much, so I'd eat whatever I wanted. ... Well, I think back on my [early] teenage years, I gained because I just felt like I didn't care if people liked the way I looked or not. And on in my twenties... I think I gained because of depression. I would get depressed about a boyfriend and breaking up or something would happen in the family, and I would eat everything in sight. And before you know it, I had gained back everything I had lost."

## FREEDOM FROM RESTRICTIVE DIETING; PHYSIOLOGICAL FACTORS

The respondent attributed her more recent struggles with relapse to a 72-pound weight gain during pregnancy at the age of 31. Two years after her delivery, her weight hovered in the 200-pound zone. Only in the past year, has she managed to maintain her weight in her pre-pregnancy range of 170 pounds. Erica noted that when she became

pregnant at the age of 31, she heeded common advice to "eat for two." The desire to be free from her usual vigilance about food and dieting may have contributed to overeating against her own better judgment.

"And then, of course when I got pregnant with my son, everybody tells you, 'Eat what you want. You can eat anything you want, and you can eat as much as you want.' And I took advantage of that; I did. I ate everything in site, because I felt, 'Oh, I'll lose it after I have him.' Well, it wasn't that easy."

At the time of the interview, Erica was enjoying success on her Metabolife diet.

Rebellion, fluctuating emotions, and instability in relationships were no longer part of her daily life. She even viewed her self differently, "I feel better about myself." She attributed her age and maturity to her new outlook. Her new outlook and resolve to succeed with weight loss also had a lot to do with her young child. Erica expressed the fact that she had a responsibility to be there for him. Living a long and healthy life was the best way she knew to fulfill that duty.

## **CASE ANALYSIS: SHELLEY**

Shelley was the youngest interviewee, 31 years old, and the first of the two African-American study participants. In comparison to most of the participants, dieting was not part of her life story until later when she was 19 years old. Her short dieting history had a lot to do with cultural and personal acceptance of her overweight status. At the time of the interview she was only on her third serious diet. In contrast to most of the interviewees, her dieting activity was infrequent. She was dieting at the time of the interview and after ten months, she had lost 40 pounds and weighed 231 pounds.

In spite of her very large size, Shelley accepted herself. This self-acceptance was unusual, and yet also part of why she first relapsed. However, self-acceptance did not

work alone in contributing to her first relapse. Other issues, like physical inactivity, cultural factors, a need to be free from restrictive dieting, negative emotions, and dieting ambivalence affected relapse.

Although self-acceptance also influenced the failure of her second dieting attempt, her attributions were a bit more complicated when it came to this relapse. The factors that played a role in this regain involved her cessation of physical activity and emotional issues. Loneliness, boredom and a stressful lifestyle were all powerful contributors.

## POSITIVE BODY IMAGE; PHYSIOLOGICAL FACTORS; PUSHED TO DIET

From a cultural standpoint, Shelley's body weight status was always acceptable. She grew up in a small town and was surrounded by close family and neighbors who accepted her body weight and did not discriminate against her. She recalled that she was the largest child in grammar school and that she was overweight throughout high school. However, she also noted that she never felt bad or self-conscious about her body. And when she dieted at the age of 19, it was only because she was pushed to do so by her cousin. Her cousin signed her up to attend the Diet Center in Arizona, she commented:

"...And the only reason I went [was] because she encouraged me to go and she was offering to pay for it. Other than that I probably wouldn't have. I never had any bad comments. No one ever said, 'Golly, you're big.' I was always, how did they phrase it, 'big boned' or a 'healthy woman.'...So, nothing that was said to me was very offensive or made me want to change or want to be different."

When Shelley relayed this story she did not seem to harbor any resentment towards her cousin. She simply noted that she attended the program, was very successful and lost 60 pounds within a year. However, as soon as she moved away from her cousin, she regained her weight. Within one year, at the age of 21, she put back all 60 pounds and maybe some more. Part of the relapse, from 140 pounds to 200 pounds, was clearly due

to the fact that she liked herself as she was and did not have a say in her program enrollment.

## FREEDOM FROM RESTRICTIVE DIETING; REBELLIOUS OVEREATING; CULTURAL ACCEPTANCE

Her upbringing and cultural heritage had a lot to do with her relapse. Although she half-heartedly reasoned that the inaccessibility of another Diet Center in Virginia contributed to her relapse, many of her statements pointed to her geographic distance from her cousin and her closeness to home as influential in her relapse. In the quote below, Shelley commented about her appetite after the Diet Center diet and again referred to her desire to be free from dieting and her cousin's influence.

"I think it [appetite] was greater only because I knew I could eat this meal. You know, 'I'm off that Diet Center, I don't have anyone to answer to. My cousin's not paying for it, so I don't have to do it. Yeah I want something, I'm going to eat it.' I didn't hold back, I ate it. ...It's almost like, 'I'm free now. I can do this, I can eat what I want to eat all over again."

Shelley also referred to the impact of her cousin's control and her rebellious response when she talked about her relapse in this statement:

"...If she had said, 'Do you want to go? I'll pay for it.' Or, 'If you decide to go, I'll help you.' That's one thing, but to actually--- I mean she just signed me up, and then I was expected to go, and I was expected to do it. And I just really wasn't ready to diet at that time. And, so when I came home, I mean she knew I was gaining it back, but it was, 'Oh, I'm home. I don't have to do this anymore."

## FOOD OR DRINK HABITS; FOOD CRAVINGS

The comfort and acceptance at home nurtured her physically and psychologically.

Home cooked foods and family acceptance were a significant part of her relapse.

"And that's when I started to gain weight back because there was no Diet Center. And just being at home and being with family and coming from a family that loved to cook, loved to eat, and it was always there, and I just was always eating. So I gained the weight back."

Her cultural food heritage was something that she could not give up easily. Fried foods that her mother prepared were quite different than the low calorie/high protein diet that was prescribed when she attended the Diet Center. Shelley's food preferences and food cravings were deterrents to weight control. Shelley thought that the restricted and tiresome food regimen was part of her relapse problem.

"...So, usually I was eating the same old stuff. ...I missed having something fried...and I'm sure that once, you know, that I was off that diet...just being able to eat and just to have that taste all over again in my mouth, yeah; I do think it had some effect on it [relapse]."

#### DECREASED PHYSICAL ACTIVITY

Shelley stopped her daily jump rope routine when she moved back to Virginia. When she returned home, she did not engage in regular physical activity for an extended time period. Shelley's second serious attempt at weight loss was almost nine years after her first relapse. In 1997, she decided to exercise and did so for a six-months. She did not change her food choices, but noted that she often skipped dinner because she was busy exercising and did not take time to prepare this meal. As a result of this active routine, she lost 25 pounds. However, she stopped exercising almost as soon as she lost her weight and put it all back in the six-month period that followed. Shelley noted that she simply got bored with volleyball; her strenuous work schedule also deterred her from continuing with activity.

## NEGATIVE EMOTIONS

Food "was always a comfort" to Shelley. Shelley recalled that her second relapse of 25 pounds had a lot more to do with emotional factors.

"I remember going through emotional and mental stress during that time. A lot of family issues and boyfriends and that type of thing. And my comfort was always to eat. I felt better if I ate. If I got upset and my stomach was bothering me, I'd eat because it would calm me down.

Besides the negative emotions brought on by relationships or family stress, boredom and loneliness were key factors in Shelley's overeating.

"...Usually it is negative [emotions] for me that cause me to gain. Usually it's something that is just really bothering me, getting me down; or even if I'm bored, if I don't have anything else to do. If I'm sitting in the house and there's nobody around...and so if I don't watch television or don't do something to occupy my mind, I'll eat."

Much of Shelley's current success with dieting had to do with changing all of the key contributors to previous relapses. Now that she was older and dieting for health, body image did not decrease her motivation and cause dieting ambivalence. She has sought psychological and nutritional counseling. Psychological counseling has helped her to deal with stressful and negative issues in life without using food as her crutch.

Nutritional counseling has taught her more about food moderation. Finally, exercise was now a permanent part of her lifestyle, as well as a solution to boredom and loneliness.

## **CASE ANALYSIS: DONNA**

One of the main reasons that Donna agreed to be interviewed was because a mutual friend had referred her to me. In addition to this reason for participation, Donna noted that she wanted to pick up some tips on weight loss. I do not think Donna would have agreed to be interviewed if success was not part of her current story. She appeared very private and a bit reserved at first, but the referral from our friend helped to establish a sense of trust and rapport. In this instance and all others, the establishment of my trustworthiness was critical because of the private and sensitive nature of relapse.

Donna's relapse entailed factors like rebellion, significant lifestyle changes and sleep disturbances. It also involved personal failure, and that was not easy for her to talk about.

## PHYSIOLOGICAL FACTORS; PARENTAL PUSH TO DIET

Donna remembered that overweight was part of her story since early childhood. She recalled that her first diet, at the age of 12, was self-initiated. She followed the same diet that her mother was on at the time. This diet, unlike her attempts thereafter, was characterized by the word "joy."

"...And if I remember correctly, your goal was to get less than 60 carbohydrates a day. And, of course at that age I really didn't know what that meant. ...Mom and I would fix special meals just for ourselves versus eating with the whole family. That was part of the joy of doing it. And I remember that I was fairly successful."

Initially, dieting with her mother may have been a "joy." It may have also been a way for Donna to get attention and approval. Notwithstanding Donna's attempts, it apparently was difficult to get her mother's approval and distract her from her own self-absorption and dieting obsession.

"...I was so resentful that that was the only thing that she would talk about. I think that's one of the reasons why I didn't try any dieting for a long period of time ... [because] if that's all she can talk about, then she needed to find something else. And, I would turn the subject around which didn't help me, but I guess that I had looked for support there, but there really wasn't [any support]. ... Either you tried to keep up with her or you didn't. 'It never worked for her so why would it work for me?' [I had that] type of attitude."

## REBELLIOUS OVEREATING

It took a while for Donna to disregard her mother's constant reminders to be careful about what she ate. Problems with overeating did not seem to really emerge until Donna was an older teen. She was able to maintain her weight loss from her first diet at age 12 through to the age of 18, but she soon found that dating and the extra socializing added up to a weight gain. Her weight went from 145 pounds at the age of 18 to 180 pounds at the age of 22.

Having children exerted an additional effect on her body weight status. She did not gain any weight with her first pregnancy but found that during a three year interval between her first child and her second pregnancy, her weight went up to 210. She stayed at this top weight of 210 until she was 31. Part of her resistance to getting this weight off was precipitated by her mother's negative view of Donna's weight.

"...I mean she would be talking about diet and set this stuff on the table and say, 'You know, you shouldn't eat this, it is bad for you.' 'Well, I'm going to eat three of these [because] she said it was bad for you.' ...And [I was] just looking for acceptance. And, if she wasn't willing to accept me as I am, why keep trying to change it?"

Donna admitted that her defiant view had a lot to do with "emotional immaturity." In spite of this present day insight, she noted that this rebellion lasted until the age of 31, and that was just nine years ago. Donna was 40 years old at the time to the interview.

#### FOOD OR DRINK HABITS; DECREASED PHYSICAL ACTIVITY

Donna's weight increase from 145 to 210 also had a lot to do with her change in responsibilities and lifestyle. A major reduction in physical activity after the birth of Donna's second child, when she was 29, exacerbated the problems that she already had with keeping her weight down. Although, Donna and her husband remained active when they had their first daughter, activity was difficult to maintain when they had two young children in tow.

"And we'd always be hiking, biking, and we were avid swimmers. When I have tried to write down the activities it gets more sporadic with age, but especially through the first, through [child's name] birth, it was definitely at least five miles a day [I would] ride the bike. It was a very big focus. A lot of our dating was hiking and bowling, very, very active. And, that really didn't change until after [second child's name] was born. But we still carried [first child's name] on a backpack and we'd go hiking with the Boy Scouts."

Donna's food choices also changed when her children came along. Donna began to cook and serve her children's food preferences. Their higher fat and calorie food choices

were not conducive to maintaining a healthy weight. The convenience and availability of these foods often outweighed Donna's efforts at fixing appropriate healthy food items. Problems with poor food choices persisted after she concluded her successful stint with NutriSystem when she was 31 years old. At the end of 6 months, she lost 35 pounds and was back down to 180. Nevertheless, during the following 18 months, Donna returned to her usual "starch heavy" diet. This program failed to help her change any of her usual eating habits that she felt were contributory to her obesity.

#### NEGATIVE EMOTIONS; FAMILY RESPONSIBILITIES AND DEMANDS

While decreases in activity and changes in food choices impacted her relapse after the NutriSystem diet, family demands and negative emotions also influenced her weight gain. Soon after her weight loss, her husband took a new job that required relocation to a new town. This was a "dark period" in her life and a time when Donna noted that she felt depressed. She was depressed about leaving her home, a good career and uprooting her children. Relapse came easily, eighteen months after reaching 180 pounds, she was back to 215-210 pounds.

"...When we made the decision to move to [town's name] it was one of those really dark periods. And having never experienced those, I don't know, it was a combination of not getting the promotion that I had earned and having two small children, and my husband working some really interesting hours, and we were at the point where I really wasn't going to move to [town's name]. The girls and I were going to stay, and it was literally a week before the move we decided, and during that time, is when I really went up to or stayed up at 210."

Moving caused instability in many phases of her life. Donna noted that her activity declined further during her adjustment period to her new home. Part of this adjustment included staying home with her children and not pursuing her career. She did not return to work until her children were school age.

"...Moving, becoming reestablished in a new community, as well as, taking time off

from my career until the girls got into school, I think I did more reading, and not as much activity. They were too big to take hiking with backpacks and stuff. So we really stopped that portion. We still did a lot of physical things, but not the 20-mile hikes that we would do every other weekend, or hiking the Appalachian Trail, that type of stuff. We no longer had time for it."

## SLEEP DISTURBANCES

Sleep disturbances coincided with Donna's move and her relapse after the Nutri-System diet. For eight years, she suffered from sleep apnea and has only slept a total of two hours a night. Only in the past year has she slept through the night. These abnormal sleep patterns influenced her intake. Donna noted that she drank a lot of sugary caffeinated beverages with lots of calories. Her exercise attempts were often stymied by sheer exhaustion.

At the time of the interview, Donna had her sleep apnea under control and was actively working on losing weight. She lost 25 pounds after two months on the Metabolite diet. Unlike all of her previous attempts, she now had great support and approval from her close family. She not only had the help of her twin sister, who was dieting along with her; she also had the aid of her husband and teenage daughters. Now that her children were older, they assisted her by accepting the leaner meals that she prepared. Their food demands no longer came before her food needs.

All of the other factors that were previously out of balance in her life were put back into order. She has adjusted to her new town, has returned to work and has made close friends. Finally, exercise was part of her lifestyle again. She has been biking, walking and playing basketball for five to six days a week for the past 18 months.

## CASE ANALYSIS: STEPHANIE

Stephanie was a 43 years old African American woman who was married with two children. Her problems with weight gain began after the birth of her first child, almost 14 years ago. In comparison to the other interviewees, Stephanie's dieting history was relatively short, yet intensive. In the past nine years she joined three major commercial weight control programs and has fluctuated between a low of 165 pounds and a high of 230 pounds.

Stephanie's relapse problems were integrally tied to her family and career. As a new wife and mother she focused "totally" on her family's needs and seemed to abandon her own needs. With a busy career and children, her established exercise habits took a backseat to lifestyle demands. Stress, lifestyle habits and family demands seemed to exert the strongest influence on her weight relapses. Other factors like loss of motivation compounded Stephanie's challenge to keep from relapsing.

#### PHYSIOLOGICAL FACTORS

Stephanie had no difficulty maintaining a normal body weight prior to her first pregnancy at the age of 29. She was tall, with a stature 71 inches, and she weighed between 165 and 170 pounds. After pregnancy, her weight reached 215 pounds. Her attempts at returning to her pre-pregnancy weight were unsuccessful. By the time she delivered her second child, 11 years ago, her battle with weight control was a permanent part of her life. She weighed 210 to 215 pounds and this seemed to be a body weight setpoint, as her body returned to this weight range whenever she stopped trying to control her weight. Despite this fact, Stephanie did not offer pregnancy as a main attribution.

# FAMILY RESPONSIBILITIES AND DEMANDS; FOOD OR DRINK HABITS; DECREASED PHYSICAL ACTIVITY

Although the intense responsibilities of caregiving may have initially been the reason that Stephanie did not try to lose weight, lifestyle habits that were maintained after her family and career grew definitely contributed to relapse problems in 1991 and 1999. Not only did her children place demands on her, her spouse also required a lot of attention. The negative influence of her husband's demands and her lack of assertiveness were conveyed when Stephanie talked about her first relapse. She commented that she was able to lose a great deal of weight when her husband went off to fight in the Gulf War in 1991. She lost 30 pounds in the three-month period that he was gone. She, however, relapsed within three months of his return and was back to 215 pounds.

"... When my husband returned back from Saudi Arabia... I was completely focused on something else now, on him and the family. And, I had to stop thinking about [Stephanie]."

Besides the attention that her husband required, there seemed to be a requirement that she prepare foods in the way he preferred. Stephanie did not override his demands. His requirements and her lack of assertiveness were definite deterrents to keeping weight off.

Old food habits were quickly resumed in the household. "I started falling right back into some of the same patterns," she commented.

On face value alone, the influence of cultural food choices and her husband's preferences figured prominently in her relapse. Yet, her inability to exert her personal choices and power over family demands may have been the root of her relapse problem.

"I think the biggest one [attribution] is just my family's lifestyle, primarily. You know my husband likes old-time, old-fashioned cooking, and for black folks that usually means, grease, fats and loads of it. ...But again, it's cultural more than anything else for me. Brought up in the South, you know, you are loaded down with fried this and ...certain foods, you know, white rice. I know when I fixed brown rice

for the first time, they went, 'What is this?'"

## WORK DEMANDS AND NEGATIVE EMOTIONS

The demands of a career also altered the balance in Stephanie's life. She felt stressed by the pace of her previous job and thought that it contributed to her most recent regain. She was referring to 17 to 18 pounds that she lost and quickly regained in June of 1999 on Weight Watchers.

"The other [reason] is just the type of career that I have. It opens itself up for a lot of evening meals, evening dinners. ...For example, during Weight Watchers, even though I lost the weight early in the program. ...I was very involved in the budget process, which meant meals all during the day, all during the night, that I didn't prepare and had no control over. The alternative would have been just as bad: running to a Burger King or a MacDonald's or somewhere because there wasn't enough time between work and starting out for another meeting to go home and prepare."

Stephanie again pinpointed stress as having an effect on her overeating when we directly discussed emotions. She indicated that she would overeat to a point and then cut it off because she did not want to look like one of her obese aunts. Nonetheless, the negative power of her aunt's image was not enough to prevent her from repeatedly overeating when under stress.

"I get triggered, and I'll eat. I'll eat on binges, and then I'll stop because I remember Aunt So and So. And, then, I'll say, 'Okay, now it's time to [stop].' I never really address the cause of the stress. Usually, it's just work related."

#### LOSS OF MOTIVATION

Stephanie required a lot of personal and outside motivation to lose weight and to keep from relapsing. She was frank about her motivational needs, "If I don't [get it] I will relapse, that's been proven, shown." She was specifically referring to her experience in June of 1999 when she regained 18 pounds. She thought that while the Weight Watcher's program provided her with support, the plateau she reached at 199 pounds decreased her

own sense of motivation. It was simply too difficult to get below an unyielding body weight.

"...If I had continued with Weight Watchers, I probably would have been able to maintain...but, it's those plateaus too, you know, where you get to a certain point and you just stay there no matter what you eat or what you don't eat. ...But the problem comes when I'm not losing the weight and still trying to stay motivated and making the time to go back and, you know, it's almost like starting all over again."

# FALSE SENSE OF SECURITY; FREEDOM FROM RESTRICTIVE DIETING; FOOD CRAVINGS

Getting past a plateau and to a weight goal was problematic. Stephanie noted that because she often felt deprived while dieting, food cravings and a laxness about food choices seemed to follow her weight loss success.

"...Well, with all of them, I think once you get to the point where you say, 'I've got this licked now,' you might maintain for a couple of weeks, and then the cravings. ...I think more of the things that you shouldn't eat you eat; just brings [it] on more and more and more. And, suddenly you find yourself back to where you were before."

#### **SLEEP DISTURBANCES**

For the past five years, Stephanie had problems sleeping. This may have been due to an undiagnosed case of sleep apnea or to her husband's night schedule. While Stephanie's weight increased to a top weight of 230 pounds during this time, she did not highlight sleep disturbance as contributory to her relapse.

Since October of 1999, Stephanie has been involved with a worksite wellness and weight control program. The fact that her work place allowed her time to exercise has greatly alleviated her dilemma of trying to find time away from family to exercise. The semi-fasting diet plan has also been a help to Stephanie. She only eats one solid meal a day and drinks two liquid shakes. This may help temporarily by reducing the influence of family and cultural food choices. In my opinion, Stephanie would greatly benefit from learning and implementing assertiveness skills. Her greatest challenge is to take control

over her own life and to teach her family to honor her needs. These actions in conjunction with weight loss may be a longer lasting solution to the prevention of another relapse.

TABLE 3. Category Identification and Theme Development

Case Study Categories/Topics	Case Analysis Categories	Cross-Case Analysis Theme
Based on Interview Guide Questions:		Based on Common Case Analysis
Disting Designation	attributions (word clusters, concepts	Categories. (Common categories
- Dieting Background	used to develop categories):	and concepts incorporated into a
- Main attributions for relapse - Fasting, diets and relapse	Dhysiological factors included:	theme)
- Cultural foods and relapse	- Physiological factors, included: slow metabolic rate, childhood	- Impact of food restrictions
* Dichotomous view of foods	overweight/obesity, pregnancy;	incorporated:
- Negative and positive emotions	overweight/obesity, pregnancy,	freedom from restrictive dieting,
- Goal weight achievement	- Negative influence of practitioners;	food cravings,
- Physical activity habits and relapse	regarde influence of practitioners,	false sense of security.
- Support system	- Food or drink habits, included:	raise sense of security.
- Body image	cultural foods and relapse and	- Impact of having personal choice
- Sleep patterns	excessive food and alcohol intake;	taken away
- Work and relapse	,	incorporated:
- Raising children	- Food cravings;	parental/family push to diet,
- Why the respondent participated		rebellious overeating,
	- Decreased physical activity,	negative influence of practitioners,
	included: usual activity habits and	sexual abuse.
(* Emergent Category)	activity before and after relapse;	
		- Negative emotions:
	- Negative emotions, included:	Based on case analysis category,
	stress, boredom, depression;	which included:
		stress, boredom, depression;
	- Positive emotions;	also incorporated: low self-esteem.
	- Freedom from restrictive dieting;	- Physiological factors:
		Based on case analysis category,
	- False sense of security;	which included:
	-	childhood overweight/obesity,
	- Low self esteem;	pregnancy and slow metabolic rate;
		also incorporated: decreased
	- Positive body image.	physical activity and sleep
		disturbances.
	- Cultural acceptance	
		- Lifestyle demands
	- Family responsibilities and demands	incorporated:
		work demands and family
	- Sexual abuse	responsibilities and demands.
	- Parental/family push to diet	- Return to familiar food and drink
	- Rebellious overeating	habits: Based on case analysis category
	- Resemous overeaming	which included: cultural foods and
	- Appetite	relapse, and excessive food and alcohol intake.
	- Sleep disturbance	alconormidac.
	- Work demands	
	- Loss of motivation	

#### **CHAPTER VI**

#### CROSS CASE ANALYSIS AND DISCUSSION

This cross-case analysis examines the common themes or patterns that emerged as influential in the obesity relapse experiences of the respondents. The development of common themes across cases rather than the formation of generalizations are the focus of naturalistic inquiry. The intent of theme development is to generate a better understanding of the problem of obesity relapse by providing insight based on examination of patterns across cases. Themes in this study were derived from frequently cited categories in the case analysis (Chapter V). These categories were directly based on respondent attributions and the researcher observations about the causation of obesity relapse. The relapse attribution themes which were commonly represented in the case studies were: 1) the impact of food restriction, 2) the impact of having personal choice taken away, 3) negative emotions 4) physiological factors, 5) lifestyle demands, and 6) return to familiar food habits. Table 3, in Chapter V, lists these themes and further illustrates how these themes evolved.

## **IMPACT OF FOOD RESTRICTION**

The impact of food restriction theme was derived from the category of responses that included freedom from restrictive dieting, food cravings and a false sense of security.

These categories were all incorporated under this theme and reflective of the respondents' reactions to restrictive dieting experiences. Five of the eight respondents noted that after dieting they wanted to be free of the restrictions inherent in their weight control diets.

Freedom from restrictive dieting played a part in the relapse accounts of Sue, Rebecca,

Erica, Shelley and Stephanie. All five of these women commented on feeling deprived because of dieting and having a greater desire to eat what they wanted after they stopped their restricted regimen. This sense of deprivation may have also impacted pregnancy weight gain for Rebecca and Erica. Both of these women noted that they gave themselves freedom to eat as they desired during this time.

Dieting deprivation is not an unknown concept in the research literature. The impact of dieting deprivation and the aftermath of this restriction was examined by Ancel Keys' in 1950. Keys et al. (1950) found that even after his subjects were placed on a high calorie diet following a 6-month semi-starvation regimen, their desire to eat persisted. It took up to 33 weeks for this preoccupation with food and heightened appetite to subside in the majority of Keys' (1950) study participants. Excessive eating on the part of these subjects was found to be attributable to their unfounded fears that food would not be available or confiscated before they had a chance to eat.

The respondents in this study did not mention fear of not obtaining food as a factor in relapsing, nevertheless, heightened appetite and food cravings were noted as an aftermath to their restrictive dieting. The same five respondents, Sue, Rebecca, Erica, Shelley and Stephanie indicated that they craved food or ate high calorie food favorites after they came off of their weight control regimens.

Restrictive dieting and the food cravings also influenced risky eating behavior. Three of the five respondents, Sue, Rebecca and Stephanie noted that after they lost weight, they had a false sense of security. This false sense seemed to compound their uncontrolled eating and their desire to be free from restrictions inherent in dieting. All noted that they gave themselves permission to eat a small amount of the foods that they

craved and to relax a bit about their dieting restrictions. All three cases noted experiencing an inability to control intake or to reverse this pattern of weight gain once they eased their own self-regulation. This unchecked pattern was contributory to their relapse problems. In their work on addictive behaviors, Marlatt and Gordon (1985) identified and labeled this type of behavior as the "abstinence violation effect." As implied, abstinence violation behavior is characterized by the loss of control following the violation of self-imposed rules.

## IMPACT OF HAVING PERSONAL CHOICE TAKEN AWAY

Six of the eight respondents associated their relapses with life experiences that involved having personal choice or control taken away from them. Categories that were subsumed under this theme included parental or family push to diet, rebellious overeating, negative influence of practitioners and overeating in response to sexual abuse. One or more aspects of this theme was present in the attributions of Rebecca, Eileen, Erica, Donna, and Shelley and Stephanie.

In four of the cases, family, boyfriends or weight control therapists negatively impacted dieting by usurping the respondent's control and choice. Rebecca, Erica, Donna and Shelley all discussed the influence of having weight control dieting imposed upon them. Donna recounted the domineering influence of her mother on her early dieting patterns and that she eventually rebelled against her mother's preoccupation with weight control. Her rebellion lasted well into adulthood and involved significant weight gain. Rebecca also rebelled, however, her rebellion was not directly aimed at her parents. Although Rebecca's parents pushed her to diet for most of her life, she did not vocalize

overt resentment towards them. Her resistance was targeted against other authority figures, such as weight control therapists. She tended to resist unreasonable food rules and restrictions placed upon her by these practitioners. This resistance lasted for over twenty years. The negative influence of practitioners was also seen in George and Erica's case studies. However, the impact on relapse did not seem to be as powerful or offered as major attributions for relapse.

Although an authoritarian weight control counselor precipitated the end of the Calorad diet regimen for Erica, this practitioner did not cause intentional and rebellious overeating. On the other hand, nagging from a longtime boyfriend did cause a negative effect. Erica commented that an old boyfriend would routinely try to regulate what she ate. She noted that she would deliberately defy him by eating the foods that he would caution her against eating. Finally, Shelley also rebelled, but not against her mother or a boyfriend. Her rebellion was targeted against her cousin who pushed her to diet. As soon as she moved away from her cousin's controlling influence, Shelley gained back all of the 60 pounds that she had lost with the Diet Center plan.

Control issues extended beyond food and dieting for some of the women. Eileen's personal control was taken away when she was sexually abused. Eileen experienced this abuse as a young child and the repercussions of her abuse experiences were clearly part of her attributions for relapse. She desired to remain obese and sexually unattractive in order to protect herself against unwanted sexual advances. In her words, food and drink helped her to deal with her bad childhood memories and "anesthetize" herself against a long history of abusive relationships as an adult. It is also possible that food and drink gave her a single area in her life that she alone controlled.

Three of the women, Rebecca, Donna and Stephanie, all experienced situations where their husbands made unilateral decisions about the course and future of their families.

They all conveyed the fact at they had very little control over these changes. Rebecca and Donna recounted the fact that their husbands decided to change jobs and relocate the family without their full consent. Both of these women relapsed following their relocation.

Control was a significant theme in Rebecca's case study. Rebecca also commented that her sense of not being able to control major tragic occurrences, like illness and death in her family, contributed to her relapses.

Stephanie noted that she relapsed after her husband returned from the Gulf War. Following his return, she was expected to cook in the traditional high fat Southern way, and to spend more time paying attention to his needs. Her new healthy cooking and self-care habits were overtaken by her husband's demands.

The subject of control and its possible influence on the development or maintenance of obesity is discussed by Reiff and Reiff (1997) in their latest book on eating disorders. These authors offer salient reasons for why psychological factors can, in some cases, play a part in the development of obesity. In their view, obesity along with anorexia and bulimia, is an eating disorder. They theorize that a "controlling environment" may be a contributor in the development of these disorders. A controlling environment is defined in the following example:

"The person either grows up in or marries into a situation in which she has a relationship with a parent or spouse who is a very controlling person. The only way she is able to survive is by giving up her own identity while trying to please the other person. Finally, she reaches a point where she finds this too painful and is no longer willing to do it anymore, but does not know how to change." (Reif and Reiff, 1997,p.4)

Reiff and Reiff explain (1997) that the individual who experiences this problematic control situation usually responds by looking outside of themselves for solutions to their internal emotional upheaval. According to these authors two paths can be chosen. The first path directly applies to obesity and involves using food as a source of comfort and sustenance to resolve problems. Food, for those so troubled, is viewed as "consistent, reliable and always there" (Reiff and Reiff, 1997). The person following this first path finds that food provides comfort and can take away pain. Reiff and Reiff (1997) also note that this person will be at risk for the development of overweight or obesity due to "compulsive eating." The second path involves a concentration on the restriction of food intake, bingeing, purging and weight loss. The person in the second path is more likely to develop anorexia nervosa or bulimia nervosa. (Reiff and Reiff, 1997)

## **NEGATIVE EMOTIONS**

Negative emotions, more often than positive emotions, impacted the relapse scenarios of all of the respondents. One or more negative emotion, like stress, depression, or low self-esteem, played a part in relapse of all of the respondents. These identified factors, stress, low self-esteem, loss of motivation and depression, were incorporated into the development of the Negative Emotions theme.

George, Rebecca, Donna and Stephanie identified negative emotions as exclusively influencing weight relapse. Eileen, Sue, Erica, and Shelley identified both positive and negative emotions as influencing their overeating and drinking habits, yet focused on how they consumed food or food and drink more often to deal with their negative feelings.

Eileen "used" food whenever she had a feeling that caused her to be stressed. Food she commented was used to "eat it [stress] away." Eileen ate or drank to forget about her flashbacks of sexual abuse and to deal with physically abusive relationships in her adult life. She also used food to cope with feelings of low self-esteem.

Sue loved to "socialize" and often overate and drank as a result. Although her inclination to "party" was a cause of her weight gain, her negative moods got her into trouble more often. During her interview, she dwelled on the aspects of her life that caused her to feel depressed. She noted that her life situation was depressing because she had so many worries about her daughter. "A couple of mixed drinks" followed by a whole pizza where often her remedy when she was "so stressed out." Her self-image was also destructive. Sue noted that she became "depressed" whenever she was gaining weight and looked at herself in the mirror. She remarked about this vicious cycle, "The more depressed I get, the more I eat." Negative life events also impacted Rebecca's weight relapses. Each of the tragedies that she had endured usually entailed coping by overeating and drinking.

Negative and positive emotions played a part in Erica's relapses. However, it seemed that negative played a bigger role in her weight fluctuations. Negative emotions, like depression and low-self esteem, were identified as influential in her relapse problems throughout her teens and early twenties. Only at one point did positive emotions, rather than negative emotions, influence Erica's weight relapse. Erica noted that when she was 25 years old, she was involved in a secure love relationship and her weight rebounded by almost 50 pounds.

Shelley identified the combination of stress and boredom as negatively affecting her body weight. This respondent commented that during times of "emotional and mental stress," she used food as a source of consolation. According to Shelley, "Food was always a comfort for me." Boredom also figured into her overeating scenario. She tended to eat if she was at home alone and had nothing to do.

Donna's relapse after NutriSystem was precipitated by a "dark period" in her life. She connected the major changes in her life and her husband's new job as factors contributing to her negative emotions. Stephanie also identified negative emotions as impacting her weight relapse. She noted that stress from her busy lifestyle had a "tremendous" effect on her ability to "manage" her weight. In addition to stress, loss of motivation played a big part in Stephanie's weight gain after Diet Center and Weight Watchers. George also identified "negative emotions" as impacting her relapses. However, she did not elaborate on the specific emotions or feelings that caused her to relapse.

Positive and negative emotions have been identified in the research literature as being influential in relapse causation. Rosenthal and Marx (1981) documented that both positive and negative emotions influenced relapse after weight control. Negative emotions, like depression, boredom and anxiety, accounted for more relapse eating when the dieter was alone. Positive emotions were more likely to influence relapse eating in social settings when dieters were with other people. Schlundt, Sbrocco and Bell (1989) also note an almost equal effect of positive and negative emotions on "dietary slips."

### PHYSIOLOGICAL FACTORS

Background factors such as childhood obesity, intractable weight gain during pregnancy, sleep disturbance and decreased physical activity were subsumed under the theme of physiological factors. While all other themes were based on the main attributions of the respondents, this theme was an exception. It included the respondents' main attribution about decreased physical activity, however, it also incorporated the researchers observations about other common physiological factors which were not typically offered as main attributions for relapse. This inclusion was critical, since the researcher felt that the possible role of other physiological factors in the development and continuation of obesity relapse in these respondents was of importance and could not be disregarded.

Decreased physical activity has been linked to the development and maintenance of obesity by Rippe (1998) and other researchers (Foreyt & Poston, 1998; Hill & Peters,1998). Decreased physical activity was the only physiological attribution that figured prominently in the relapse episodes of four of the cases. Rebecca, Shelley, Donna and Stephanie all cited a decrease in their usual activity as contributory to their relapse problems. Stephanie indicated that there was a decrease in activity with her first relapse and highlighted how her activity level had changed while raising young children.

Sue and George acknowledged that they decreased activity when they were relapsing, however, neither of these respondents highlighted decreased activity as an important factor in their relapses. Eileen and Erica never incorporated exercise into their weight control regimens and did not view a decrease in physical activity as a major attribution for their relapses.

Limited sleep and sleep disturbances were additional physiological factors that affected four of the respondents. Nevertheless, only Donna highlighted sleep disturbances as problematic and associated lack of sleep with relapse. Donna suffered from sleep apnea for a period of eight years and is currently being treated for this problem. Stephanie had problems with interrupted sleep for the five years. Her snoring and her husband's late night work schedule contributed to her limited sleep. Stephanie's sleep problems were resolved at the time of the interview and she did not focus on sleep as part of her relapse attributions. George slept four hours a night on the average until very recently. Sue also slept four to five hours each night and continued to do so. Stephanie, George and Sue did not associate their limited sleep with relapse. Research on sleep disturbance, and its possible role in obesity maintenance, is limited. However, sleep disturbances were observed in subjects classified as relapsers in a study by Marston and Criss' (1984). In this same study, weight loss maintainers had fewer problems with their sleep patterns.

Physiological factors, like childhood obesity and excessive weight gain during pregnancy, were rarely given as major attributions for relapse. Notwithstanding this fact, it is worth noting that childhood and pregnancy were two specific periods when the majority of respondents indicated that they were overweight or began to have weight control problems. Research literature on obesity development identifies the fact that excessive hyperplasia in childhood (Sizer & Whitney, 2000) and during other stages of active weight gain, may be contributory to obesity maintenance (Brownell & Wadden, 1992).

Seven of the eight respondents indicated that they were overweight as children.

Stephanie was the only respondent who was normal weight as a child. Her weight control

problems began with pregnancy. Weight gain during pregnancy also seemed to exacerbate relapse problems in five of the respondents: Sue, Eileen, Rebecca, Erica, and Stephanie. Only Erica cited pregnancy as a main factor in her relapse attributions.

# **LIFESTYLE DEMANDS**

Work demands and family responsibilities and demands were incorporated into the theme of lifestyle demands. Four of the respondents, Sue, Donna, Shelley and Stephanie, noted that the demands of their families or the demands of work impacted their body weights. Sue was clear in her interview about the burden that her youngest daughter placed on her. Many times the responsibility of caring for "two families," her immediate family and her daughter and grandson, made her seek solace in food and drink.

Workload and associated stress were major reasons that Shelley gained weight during her second relapse. Because of excessive work, she discontinued her schedule of eating regular meals and of frequent physical activity. Both of these factors she thought contributed to her relapse.

Donna did not paint a burdensome picture of her family, nevertheless, she did note that the demands of motherhood changed her exercise and eating lifestyle. She and her husband had been avid hikers, bikers and swimmers up until the time their second daughter was born. Their active lifestyle changed because they were no longer able to accommodate young children and these sporting activities. Food choices also changed when Donna had a family with small children. Higher calorie food preferences of the children replaced the healthier fare that she typically ate. These lifestyle changes seemed to predominate for a period of ten years or more until her children were preteens. Only

recently have her children been supportive of lighter and healthier meals. As a result of their support, Donna has also started back with a routine of biking and walking and dieting.

The challenge of providing nutritious meals while juggling a career and family has been previously documented in work by Newell and colleagues (1985). Stephanie's life exemplified this struggle. Her family's lifestyle, in particular, her family's preference for "old-time, old-fashioned" Southern Cooking, presented a challenge to her efforts at cooking and eating healthfully. Beyond food, her husband and her children had other requirements. Stephanie seemed as if she was solely responsible for caring for everyone's needs. She was required to pay attention to her husband, to shuttle the children to various school activities, to cook or provide meals and to maintain an important career. Her life was a balancing act and the expectations seemed overwhelming.

### RETURN TO FAMILIAR FOOD AND DRINK HABITS

The theme of return to familiar food and drink habits was derived the case analysis category of food and drink habits. Incorporated into this category were cultural foods and relapse and excessive food and alcohol intake. This theme entailed relapse attributions that related to eating and drinking in a volitional and pre-weight control manner. This theme is distinctly different from attributions that related to eating in response to restrictive dieting and food cravings.

Seven of the eight respondents, George, Sue, Eileen, Rebecca, Shelley, Donna, and Stephanie commented that they also thought that they relapsed simply because they ate too much. George included "overeating" as one of her attributions for relapse. Sue noted

that she liked to "party" and this included eating and drinking alcoholic beverages. Eileen commented that she loved to entertain and that she cooked and ate heavy German food. Rebecca noted that she just had a really big "appetite." Shelley loved her mother's Southern cooking and recalled that eating her mother's wonderful cooking was part of her relapse problem after her major weight loss at the Diet Center. Donna stated that a "return to a starch heavy diet" after NutriSystem was contributory to her relapse. Finally, Stephanie commented that after cooking for the family in the old traditional way, she too would "fall back into old eating habits." This regression caused rapid weight relapse after her Diet Center and Weight Watchers experiences.

The contribution of excess food and alcohol calories to the development of obesity is well documented. Sizer and Whitney (2000) note that weight gain is inevitable when an individual eats more than they physically expend. Alcohol also exacerbates the weight gain equation because it is easily absorbed and converted to body fat for storage (Sizer and Whitney (2000).

### **DIVERGENT CATEGORIES**

The only categories that were not commonly represented and included in theme development were Positive Body Image and Cultural Acceptance. These categories were distinct to Shelley's case. Shelley was the only woman who attributed her first relapse to the fact that she had a positive view of her body and did not perceive herself as obese. Shelley's close knit African-American community also accepted her obese size and this cultural acceptance made it easier for her to relapse without any close social ramifications.

## EMERGENT DESIGN: DICHOTOMOUS VIEW OF FOODS

Sue was the first respondent to note that she viewed and categorized food as good and bad. All of the other respondents were asked if they had a similar view and it became part of the emergent design. Six of the eight respondents noted that they did have this dichotomous view. None of these respondents focused on this view as impacting relapse. However, this view may have potentiated the sense of feeling food restricted and deprived and may have ultimately led to a return to familiar food and drink habits.

## WHY THE RESPONDENTS PARTICIPATED

All of the respondents indicated that they were attempting to lose weight through dieting or by focusing on healthy lifestyle and physical activity habits. At the time of the interview four of the women, Sue, Donna, Rebecca, Stephanie, noted that they participated because they hoped that they would pick up dieting tips or bits of nutrition information that would help them. Four of the women, Sue, Eileen, Rebecca and Stephanie, thought that the interview process itself would help them gain insight into their previous problems. They hoped that this insight would help with current dieting efforts.

Two of the women, Eileen and Erica, participated because they hoped that other people would benefit from their participation. Eileen was optimistic that through this study other physically and sexually abused young women would make the connection between abuse and overeating. Eileen also hoped that physicians and other medically practitioners would gain insight into obesity and relapse. Erica participated because she

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thought that through this study people might learn to be more understanding and less discriminatory toward obese women.

Shelley noted that the only reason she participated was because she was doing so well with her current dieting attempt and was not afraid to talk about herself. Erica reflected this sentiment and stated that she would not have done this earlier in her life but now that she was successful on her diet and older she was able to talk about her previous failure. George also participated because she wanted to show that she was not afraid or embarrassed to talk about her obesity problems. Finally, George and all of the other women indicated that they also participated because they wanted to simply help out.

#### **CHAPTER VII**

#### SUMMARY AND CONCLUSIONS AND RECOMMENDATIONS

# **SUMMARY AND CONCLUSIONS**

This qualitative study revealed a great deal about the problem of obesity relapse in the eight female respondents. Conventional wisdom concerning factors that contribute to relapse was challenged by the information presented in this study. According to the respondents excess calories and decreased physical activity were not the only conditions that were contributory to relapse. Yet, lack of ability at controlling dietary lapses was not necessarily at the core of their attributions. Instead, diverse social and psychological issues combined with physical factors to dominate their attributions. The major themes for relapse that were commonly represented in this study were: the impact of food restriction, the impact of having personal choice taken away, negative emotions, physiological factors, lifestyle demands and the return to familiar food habits.

Years of dieting deprivation and restrictions caused many of the respondents to feel deprived both physically and emotionally, and these factors played a part in relapse. For many of these participants, eating after frequent dietary restriction may not have been as much a matter of powerlessness over food, as it was a psychological and physical response to food restriction. Factors such as falling below a natural weight range or feeling deprived may have lead some to eat in response to insatiable hunger or to have a heightened appetite and an obsession about food.

Powerlessness over certain life situations, rather than food, factored into three of the additional emerging themes that were presented in this study. To an extent all three themes: the impact of having personal choice taken away, the impact of a demanding

lifestyle and negative emotions, all entailed the respondents' powerlessness over significant people or situations in their lives---mothers, husbands, boyfriends, children or jobs. However, resolution of everyday problems and life situations was not the focus of the weight control diets that the majority followed. Most of the diets or programs that were attended by the respondents were based on a medical model for obesity treatment. Physical causation, such as excessive calories, was usually the common treatment target. On occasion, inadequate physical activity was also addressed. Social and psychological factors that interfered with success at weight loss maintenance were not a focus.

In addition to these factors, the individual nature of obesity relapse was clearly highlighted in this study. The interview and case study components of the qualitative design allowed each respondent to talk about their personal relapse problems and attributions. Many important factors that would otherwise be lost to history because they are not usually the subjects of inquiry were revived and given a voice. The process of bringing such personal factors into the spotlight through the interview and case study may be key factors in healing and prevention of further relapse problems.

#### RECOMMENDATIONS FOR TREATMENT AND FUTURE RESEARCH

The information that emerged from this study about obesity relapse may be helpful to women struggling with relapse, as well as obesity practitioners engaged in treatment. It sheds new light on possible contributors to relapse and offers a glimpse at relevant factors that may need to be incorporated into treatment.

As noted, the methodological tools, which included the open interview and the case study, were helpful to respondents. Many of the women indicated that the open interview

helped them to think about their relapse problems and this reflection helped them to obtain some personal understanding about relapse causation. The case studies were also viewed as a helpful tool. Some of the respondents commented that suddenly their lifelong struggles with weight control were clearer. Perhaps, this clarity will help with subsequent weight control efforts and prevent them from repeating some of the same unsuccessful patterns. Future studies incorporating these tools into obesity assessment and treatment may prove to be invaluable.

Beyond the discovery of helpful methodological tools, the overall study highlighted the individual nature of obesity relapse. It underscored the varied nature of relapse and the fact that the body, mind and spirit are inextricably linked. Given this nature, it is recommended that future obesity assessment and treatment be thorough and include approaches that take account of the entire individual.

The ADA's position paper (1997) on weight management is a good start because it recommends a more integrated approach to deal with obesity assessment and treatment. It is firmly against restrictive dieting and embraces the concept of achieving and maintaining a healthy weight and physical wellness. The ADA position paper, however, still places major emphasis on the dietitian as the key assessment and treatment manager. To an extent, the ADA's position ignores the fact that dietitians may be ill equipped to assess obesity causation which is outside of the dietetic realm, or to provide psychological counseling for body image or low self esteem.

More holistic approaches are needed to help people manage obesity. Such approaches have been recommended by Brownell (1999), Brownell and O'Neill (1993) and Foreyt and Goodrick (1994). For example, during an obesity assessment, Brownell and O'Neill

(1993) advocate the use of questions pertaining to: life and work experiences, pressures from others to lose weight, self-esteem problems, support system and medical history. The use of self-efficacy testing on weight loss maintenance is also advocated. According to these practitioners, beyond medical factors, social and psychological factors are critical in determining if the obese client needs additional psychological support. This support is viewed as important to overall success and weight loss maintenance (Brownell & O'Neill,1993).

Information that was collected in this study on the impact of food restriction also lent support to the need for a new treatment approach to obesity. Some obesity experts have called for a paradigm shift away from the focus of thinness at any cost to achievement of a healthy body weight and an active lifestyle. Ikeda (1999) and colleague Satter (Babcock, 1999), note that traditional didactic approaches espoused by NIH (1998) have been unsuccessful. They believe that it is time for the health professional to help obese and overweight to be healthy regardless of weight loss. Other advocates for this approach, Berg (1998) and Gaesser and Kratina (2000) have fostered this paradigm shift because of the contention that dietary restriction increases food preoccupation and can sabotage good intentions of eating and living healthfully.

The problem of dieting deprivation, as seen in this study, may have been relieved if more of the weight control regimens stressed physical activity, had established more reasonable goals, and loosened restraints on caloric recommendations. A shift in emphasis away from calorie restriction to inclusion of physical activity may be one way for relapsers to seek a possible resolution to a weight control problem that has been untenable. Adding physical activity to one's lifestyle may be a first step in empowerment.

It also may be a means for those that cannot stop overeating to compensate with a behavior that has the pay back of improved physical and emotional health.

Nevertheless, from even a cursory examination of the major attributions for obesity relapse in this study, we are again reminded that obesity treatment, which is based solely on physical modifications, may be grossly inadequate. Most of the respondents were in need or treatment that targeted the crux of their life circumstance problems. Assessment and treatment of problems that were driving the overeating would have enhanced the prognosis for these respondents. Furthermore, a treatment that combined lifestyle skills like assertiveness training, conflict resolution, and stress management with physical activity training and nutrition information could have enhanced relapse prevention efforts for many involved in this study. A multidimensional approach that employed a psychologist, nutritionist and exercise physiologist would appear to be beneficial. Treatment administered solely by a nutritionist or dietitian is not recommended since very few of these professionals are trained in psychology and exercise physiology. Indepth training, particularly in the area of psychology, would enhance treatment of obese individuals who may need counseling for assertiveness, cognitive behavioral restructuring and relapse prevention techniques. In conclusion, further study incorporating these recommendations for obesity relapse would be helpful for an increasing number of Americans who are fighting a refractory problem.

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# APPENDIX A

IRB Approval Form



301 Burruss Hall Blacksburg, Virginia 24061-0249 (540) 231-5281 Fax: (540) 231-4384

# MEMORANDUM

TO:

Paula C. Caravati and Dr. Ann Hertzler

FROM:

DATE:

January 27, 1998

SUBJECT: IRB EXPEDITED APPROVAL "Obesity Relapse in Women " -

IRB #98-023

I have reviewed your request to the IRB for the above referenced project. I concur that the activity is of minimal risk to the human subjects who will participate and that appropriate safeguards have been taken. On behalf of the Institutional Review Board for Research Involving Human Subjects, I have given your request expedited approval.

This approval is valid for 12 months. If the involvement with human subjects is not complete within 12 months, the project must be resubmitted for reapproval. We will prompt you about 10 months from now. If there are significant changes in the protocol involving human subjects, those changes must be approved before proceeding.

Best wishes.

HTH/crg

# APPENDIX B

Letter to Potential Respondents

Letter of Endorsement

### LETTER TO POTENTIAL RESPONDENTS

Dear	•
Dear	 •

I am a nutritionist and doctoral candidate in Human Nutrition, Foods & Exercise at Virginia Polytechnic Institute and State University, and I am very interested in understanding weight loss and weight regain in women. My doctoral dissertation study will focus specifically on weight relapse in middle aged women. I have worked with a member of the IQ Health team, Rebecca Reeve, and have taught a number of weight control programs over the past 15 years. As health professionals, we are interested in ways to assist people with maintaining long-term weight loss and achieving overall wellness. I am contacting you because I am interested in finding out more about your experiences of weight change during and after participation in a weight control program.

Having worked in the field of weight control and wellness, I understand the effort and frustrations involved in trying to lose and maintain weight, and I also recognize the personal and sensitive nature of this struggle. Your willingness to talk about your experiences and to shed some light on this topic would be beneficial to me, and ultimately beneficial to many dieters who constantly fight the battle to control body weight.

Participation in this study will require that you are not presently dieting and are willing to be interviewed and tape recorded (audio) for approximately one to two hours in length. Interviews will be kept confidential, and identity protected. Members of the doctoral committee, a peer debriefer, and transcriber will be allowed access to this interview, but respondents will remain anonymous. If you are interested in participating, I will make every effort to make the interview convenient for you. Please contact me at 804-296-9636, I will call back and answer any questions or concerns you may have. Thank you for your help.

Sincerely,

Paula Ciavarella Caravati, M.S.,R.D. Doctoral Candidate, Human Nutrition, Foods & Exercise, Virginia Polytechnic Institute and State University



January 2, 1998

Virginia Polytechnic Institutional Review Board for Human Subjects Research c/o Paula Caravati, M.S., R.D.

To whom it may concern:

I have spoken with Paula Caravati and reviewed her protocol for an interview study to determine why obese dieters have a difficult time keeping weight off and tend to regain weight. We view this study as an opportunity to enhance our evaluation efforts of our weight control interventions and are willing to give permission for Paula to recruit volunteer respondents from our program participants. We are also willing to grant appropriate access to case files and other measurement data on those respondents, with appropriate written release from the respondents for access to that information.

We are looking forward to working with Paula and to the opportunity for using this study to enhance our health promotion practice.

To your good health,

Rebecca H. Reeve, M.S., CHES

Health Promotion Program Manager

141 Ednam Drive harlottesville. Virginia 22903 804-979-WELL (804-479-9355) FAN: 804-979-5146

# APPENDIX C

Protocol Outline for IRB Request

# PROTOCOL OUTLINE FOR IRB REQUEST

### **Justification of the Project**

The purpose of this dissertation project will be to find out more about why obese dieters have a difficult time keeping weight off and tend to regain lost body weight after dieting. Relapse after weight loss is a major problem encountered by many dieters. Dieters will regain approximately one-third to two-thirds of their lost weight within one year after dieting and all lost body weight within five years. Despite the magnitude of the occurrence of obesity relapse, little is known about the people who lose weight and regain. To date, there is limited research on relapse and scant qualitative inquiry focusing on the mechanisms of this problem. This is of particular concern to health professionals, since obesity predisposes individuals to many chronic diseases---diabetes mellitus, cardiovascular disease and certain cancers, to name a few. These attendant health problems and the increasing rate of our national prevalence of obesity (currently 34 %) make research and study of relapse critical.

This project proposes to interview 10 women that have relapsed (see below for relapse criteria), and to discuss with them issues that they think influenced their relapse. An open-ended interview approach will be used. All interviews will be audio tape recorded and transcribed. This data will be collected and each interview presented as a case report within the doctoral dissertation with detailed descriptions of individual interviews. Common themes and patterns of all the gathered data will also be reported in the dissertation.

Obtaining this information is critical, as these accounts will allow us to develop a model of dieting relapse that would provide obesity practitioners with a better clinical understanding of the problem and prevent relapse in the future.

#### **Procedures**

**Subject Pool:** Subjects will be a sample of 10 middle aged (35-60), middle income women. Regarding criteria for relapse--- all relapsers must be 20 % or more overweight. Overweight will be calculated by using the midpoint of the weight range for a medium-frame woman for a given height as indicated in the 1959 Metropolitan Life Insurance Tables. In addition to being 20% or more overweight, relapsers must have previously lost 20% of their weight one or more times and regained it, and cannot currently be dieting.

Previous participants of IQ Health, a private behavioral weight control program for University of Virginia's Medical Center will be recruited through a letter sent out to patients that are no longer actively followed. A copy of the **Letter to Potential Respondents** is attached. An ad will also be placed in the local newspaper (Charlottesville's Daily Progress) in order to recruit volunteers who did not attend structured weight control programs. In this qualitative study, selection will be purposive, which means that volunteers will be chosen because they have experienced relapse, they are articulate, and are willing to relate information which will help understand the questions under study.

Regarding single gender research: This particular subject pool (all women) has been selected because women comprise the overwhelming majority of participants in weight control programs. To date a completely qualitative based study has not been done on this population, and our understanding of relapse in women is very limited.

**Procedures to be followed:** All subjects will be interviewed one time by the primary investigator, in an open-ended manner for a period of 1-2 hours at a quiet and private site that they choose (office, conference room, home). The **Interview Guide Questions** are attached (**Table 2**). The interview will be audio taped, and written notes will also be taken by the researcher. Respondents will be contacted by phone by the primary investigator after the interview, if there is a question about a response and further clarification is needed.

#### **Risks and Benefits**

The risk involved in this project is that the discussion of personal experiences which relate to relapse can cause emotional distress. The primary investigator is a Registered Dietitian skilled in counseling diet clients, and will be able to assist respondents who experience this possible risk by providing referral to psychological support professionals in the community.

Volunteers will not be paid for their participation in this study. Dietary analysis or nutritional counseling will not be provided as compensation. The benefit to participants is the knowledge that they will be contributing to research, and helping researchers to understand and possibly prevent obesity relapse.

# **Confidentiality/Anonymity**

The anonymity of each of the participants will be preserved under all circumstances. Respondents will self-select a pseudonym (or code name) and this pseudonym Will be used during taping of the interview and reporting of data. The actual identity of participants will only be known by the primary researcher. The corresponding pseudonym (code name) and actual name of participants will be kept in a locked desk in the primary researcher's office.

Interview tapes, as indicated, will also contain the participant's pseudonym. A professional secretary will be employed to transcribe the audio tapes, and only pseudonyms will be available to her throughout this process.

Interview tapes and transcribed documents containing the pseudonym will be kept on file in the primary investigator's locked desk. For auditing purposes, these tapes must be available to the doctoral committee upon request. The transcribed information must also be available for review by the doctoral committee and a peer debriefer. A peer debriefer, is a professional peer with experience in the topic area that provides consultation on the project. The debriefer checks to see that the themes that the primary researcher sees emerging are confirmed by the collected data.

The doctoral committee and peer debriefer will not, however, have access to the participants' identity. Audio tapes will be erased one year after completion and publication of the primary investigator's doctoral dissertation, the transcriptions will also be destroyed in the same time frame.

#### **Informed Consent**

A copy of the Informed Consent for Participants of Investigative Projects is attached. Consent has been granted from Rebecca Reeve, M.S., CHES, Program Manager of Health Promotion, at IQ Health to access previous weight control program participants. Consent letter is attached.

### **Biographical Sketch of the Primary Investigator**

Paula Ciavarella Caravati, is a doctoral student in Human Nutrition, Foods and Exercise at Virginia Polytechnic. Paula is also a practicing nutritionist and registered dietitian presently working as the Administrative Nutritionist for the University of Virginia Dining Services. Over the past 17 years of professional practice she has worked directly with obese and overweight patients, at UVA's Clinical Nutrition Center, the Thomas Jefferson Health Department, worksite wellness at Nurse's House Call and IQ Health, and in private practice. Her work has included teaching nutrition and behavior modification to obese patients, providing individualized counseling and making appropriate patient referrals to mental health practitioners.

She has also concentrated on the problem of obesity in her doctoral course work. Her interest in studying obesity relapse using a qualitative perspective developed through her graduate course work and study with Dr. Bob Covert, Professor of Education, at the University of Virginia. Paula has previously carried out qualitative interviewing and reporting using the techniques of qualitative research under the supervision of Dr. Covert. Dr. Covert is a doctoral committee memberAd: has worked closely with Paula on her current research proposal, and will be available for consultation throughout her project.

Each step of her doctoral research proposal has also been carefully reviewed and guided by faculty advisor and Doctoral Committee Chairperson, Dr. Ann Hertzler, R.D., Professor and Extension Specialist in the Department of Human Nutrition, Foods and Exercise at Virginia Polytechnic Institute. Dr. Hertzler's extension focus and knowledge of human nutrition and food habits will further strengthen this research project.

Attachments: Informed Consent

IQ Health Consent Letter to Potential Respondents Interview Guide Questions (Table 2)

# APPENDIX D

Informed Consent Form

# VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY Informed Consent for Participants of Investigative Projects

Title of Project: Obesity Relapse in Women

Investigators: Paula C. Caravati, M.S., R.D, and Ann Hertzler, Ph.D., R.D.

# I. The Purpose of this Research Project

The purpose of this research project is to find out about the mechanisms of dieting relapse, that is, why individuals regain weight after having successfully lost weight on diets. This study proposes to ask women who have actually experienced this problem why they think it happened. To date, there are no studies which examine the personal accounts of women who have experienced relapse. Obtaining this information is critical, as such personal accounts would allow us to develop a model of dieting relapse that would provide practitioners with a better clinical understanding of the problem and help to prevent relapse in the future.

Ten women will be asked to share their relapse experiences with doctoral student and researcher Paula Caravati. Collected data will be published as part of the doctoral dissertation entitled Obesity Relapse in Women.

#### II. Procedures

All subjects will be interviewed by Paula Caravati, one time for a period of one to two hours in a private setting of their choice. Interviews will be audio-taped, and written notes will also be taken during this interview. All questions will be openended, and relate to experiences of weight regain. In the event that the researcher has questions about any of the responses, the volunteer will be contacted by phone up to one week after the interview. The data from each of the interviews will be compiled as a case report format where information provided by the subjects will be described in depth in the doctoral dissertation. (Anonymity will be preserved in this process--- see section V.) Quotes or specific comments the subject makes will be reported on and used to develop a descriptive account of each subjects' experience of weight regain. Information provided by all subjects will be compared for common themes or patterns. Themes and case reports will be written up and published in a doctoral dissertation. Pseudonyms only will be used when reporting all of the data.

### III. Risks

The risk involved in this project is that discussion of personal experiences which relate to relapse can cause emotional distress. The researcher, a Registered Dietitian who is skilled in counseling diet clients, will be able to assist respondents who

experience this possible risk by appropriately providing referral to psychological support professionals in the community.

## IV. Benefits of this Project

The benefit of participation in this study is the knowledge that the information provided by the volunteer will contribute to research. Information provided will help researchers to understand and possibly prevent obesity relapse in the future.

Subjects will not be compensated in any way, nutritional counseling, dietary analysis, or money will not be given to subjects. No promise or guarantee of benefits have been made to encourage you to participate.

### V. Extent of Anonymity

The anonymity of each of the subjects will be preserved under all circumstances. Subjects will self-select a pseudonym (code name) and this pseudonym will be used during taping of the interview and reporting of data. The actual identity of participants will only be known by the primary researcher, Paula Caravati. The pseudonym (code name) with the corresponding real names will be kept in a locked desk in the primary researcher's office.

Interview tapes, as indicated above, will also contain the subject's pseudonym. A professional secretary will be employed to transcribe the audio tapes, but only pseudonyms (code names) will be available to her/him throughout the process.

Interview tapes and transcribed documents will be kept on file in the primary investigator's locked desk. For auditing purposes, these tapes must be available to the doctoral committee upon request. The transcribed information must also be available for review by the doctoral committee and a peer debriefer. A peer debriefer, is a professional peer with experience in the area of obesity that provides consultation on the project.

The doctoral committee and peer debriefer will not, however, have access to the subject's identity. All audio tapes and written transcriptions will be destroyed one year after publication of the primary investigator's doctoral dissertation.

## VI. Compensation

Subjects will not be compensated in any way.

#### VII. Freedom to Withdraw

Subjects are free to withdraw from this study at any time. At any time during the study, subjects are free to not to answer questions.

#### VIII. Approval of Research

This research project has been approved, as required, by the Institutional Review Board for Research Involving Human Subjects at Virginia Polytechnic Institute and State University, by the Department of Human Nutrition, Foods and Exercise, and IQ Health at University of Virginia.

# IX. Subject's Responsibilities

I voluntarily agree to participate in this study. I have the following responsibilities: availability for a 1 to 2 hour in-person interview, and, if necessary, phone availability to clarify any interview questions after the interview process.

# X. Subject's Permission

I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent for participation in this project.

If I participate, I may withdraw at any time without penalty. I agree to abide by the rules of this project.

Signature	Date
Should I have any questions about this research or it	s conduct, I may contact:
Paula Caravati, M.S ,R.D.	804-296-9636
Primary Investigator	Phone
Ann Hertzler, Ph.D., R.D.	540-231-4673
Co-investigator and Faculty Advisor	Phone
Rebecca Reeve, M.S., CHES	804-979-9355
IQ Health, Program Manager	Phone
E.R. Stout	540-231-9359
Chair, Institutional Review Board	Phone
Virginia Polytechnic Institute & S.U.	
Research Division	

# APPENDIX E

Researcher as Instrument

#### **APPENDIX E**

#### RESEARCHER AS INSTRUMENT

The Methodology section, in Chapter III, describes the use of the term "researcher as instrument." This term refers to the influence of the researcher's thought process and professional and personal background on the qualitative study design. The researcher's biases, attitudes and beliefs, also influence the development of the research study. These factors are acknowledged in the qualitative paradigm and form part of the design. The interview questions, the analysis and final interpretations are all shaped by and related to the researcher's past experiences, personal interest, attitudes, biases and beliefs.

My personal and professional experiences in the field of obesity have shaped many aspects of this study. My father's frequent dieting efforts influenced my perspectives on weight control from a very early age. He loved to eat; nevertheless, he gained weight easily and struggled with his body's natural inclination to be overweight. Almost each year, after three to four months of intensive dieting, he would lose weight. However, his victory was usually fleeting and within no time he would regain. I became curious about weight control and nutrition because of his experiences. I also became extremely cautious about pop diets and dieting gimmicks.

My interest in weight control continued throughout college and graduate school. I focused my studies on the field of nutrition and obesity management. In 1980 after receiving my Master's degree, I took my first job at the Obesity Center at the University

of Virginia Medical Center. For four years I taught behavior modification, provided weight control counseling and supervised protein sparing modified fasts to obese and morbidly obese patients. Through this experience, and my subsequent professional practice, I saw first hand how difficult and 'refractory' obesity could be. I also saw how insufficient the state-of-the-art-treatment was. It appeared as if the medical model was falling short, and in some ways, practitioners seemed to be contributors to the perpetuation of the problem.

Although the focus of my professional counseling has changed, I have remained interested in the area of obesity management. I continue to believe that there is a way to help those who want to lose weight permanently or achieve a healthier status. The information that was shared with me by the eight respondents made this personal goal achievable. I plan to continue to work toward this end and I am grateful to all of the women who participated and told me their personal stories.

#### VITA

Paula Ciavarella Caravati was born on April 30,1954 in Long Island City, New York. She received a Bachelor of Arts degree in Home Economics with a concentration in Foods and Nutrition from Queens College, C.U.N.Y. in 1976. She received her Master of Science degree in Human Nutrition and Foods from Virginia Tech in May 1980. In June of 1981, she became a registered dietitian and member of the American Dietetic Association. Ms. Caravati has been employed in the field of nutrition for 21 years. Most of her professional work has concentrated on the management of obesity and other chronic diseases. She currently provides nutrition counseling and teaching to students at the University of Virginia. Following completion of her Doctoral degree, she will continue to pursue her interest in obesity research and management.