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Attachment and Affect Motivated Eating Behavior in an Obese Population: Maintenance versus Relapse

by

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Abstract

Attachment and Affect Motivated Eating Behavior in an Obese Population: Maintenance versus Relapse

Mary Jean Celec

This dissertation explored object relations characteristics in an obese population by comparing those who relapse following treatment with those who maintain their weight losses following treatment. The impetus for this study came from the proliferation, in recent years, of weight loss programs whose long-term results have been dismal. This all-too-common trend of relapse only serves to perpetuate the negative physical and psychological concominants of obesity.

This dissertation presented a psychodynamic approach to conceptualizing relapse in weight loss and conducted a preliminary exploration in an effort to glean some information to confirm or disconfirm the usefulness of this approach. Theoretically, disruptions in early attachment, through empathic failures on the part of the selfobject, interfere with internalization of self-soothing structures. Consequently, when the self experiences intolerable affect, the self initiates some action to ameliorate it. In the case of obesity, the self eats compulsively. This dynamic plays a role in relapse.

Assessing the theoretical concepts presented through the Bell Object Relations Inventory with particular attention to the Insecure Attachment subscale, this study proposed that those who relapsed would show greater object relations deficits than those who maintained their weight losses and that those who reported emotional eating would show greater deficits on the Insecure Attachment subscale than those who did not. The subjects included in this study were thirty-nine caucasian females who had participated in a modified fasting diet. The study contacted the subjects through mailed surveys. It analyzed the data collected through the use of a t-test.

Results did not show a significant difference between the relapse and maintenance groups. However, a significant difference appeared on the Insecure Attachment subscale when it compared emotional eaters to non-emotional eaters. This finding was consistent with the theoretical link between affect motivated eating behavior and the quality of object relations.

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CHAPTER 1: INTRODUCTION

1.0 Overview and Objectives

In the United States obesity has been on the rise, and with it there has been a surge in weight management programs. The causes of obesity range from hereditary factors, physical disorders, inactivity, and overeating. Overeating has been the focus of therapy in many weight loss programs. These programs have attributed the cause of overeating to various factors including environmental cues, habit, lack of nutritional knowledge, and eating in response to various affective states. It is the last of these causes, affect, that this author proposes fuels compulsive eating. Compulsive eating is significant in the treatment of obesity in that this author's clients often report an overwhelming compulsion to eat as the cause of their inability to employ weight management strategies consistently. In effect, then, patients often find themselves regaining the weight that they worked hard to lose. Relapse is very common.

In an attempt to understand this phenomenon, this author has chosen to look at relapse in weight loss from a psychodynamic perspective. In doing so, this study will explore object relations characteristics of an obese population, with particular attention to attachment issues. Additionally, it will explore the

link between attachment issues and eating in response to affect. This exploratory study will seek to find a relationship between quality of attachment and weight loss relapse, as well as a relationship between quality of attachment and affect motivated eating behavior.

1.1 Limitations of the Study

The limitations of this study are threefold: those which pertain to the characteristics of the subjects, to the relapse data, and to the instruments employed in the study. First, the validity of the generalizations derived from the results of the study is dependent upon the extent to which this obese population is representative of the obese population in general. Second, the relapse data collected is dependent upon self-report measures; thus, the accuracy is vulnerable to the bias of the subject. Third, the results are valid only to the degree to which the instruments employed actually measure what they purport to measure.

1.2 Organization of Dissertation

This dissertation will first provide a general overview of obesity including causes; maintaining processes; physical, psychological, and sociocultural effects; treatment; and relapse. A general

theoretical foundation provided from a psychodynamic point of view will precede a more elaborate explanation of Self Psychological Theory and its application to this dissertation topic. Empirical research will follow, lending support to the theoretical concepts discussed--in particular, empirical studies linking affect to eating behavior and studies looking at object relations deficits in eating disorders. This literature will provide the foundation for the research rationale and hypothesis of this dissertation. After the author has described the methodology and results, a discussion and summary will conclude this dissertation.

CHAPTER 2: SCOPE AND SIGNIFICANCE OF OBESITY

2.0 Definition and Prevalence of Obesity

Obesity is one of the most prevalent health problems in the United States. Obesity is typically defined by the medical community as 20% or more over ideal body weight (IBW). Stunkard (1984) further classified obesity as mildly obese (20%-40% over IBW), moderately obese (41%-100% over IBW), and severely obese (greater than 100% over IBW). Stunkard (1984) suggested that 90% of the obese population falls in the mildly obese range. Estimates of obesity range from 26% to 35% of the United States population (Smith & Fremouw, 1987, citing Stunkard, 1984 and Maltz, 1987).

2.1 Causes of Obesity

There are numerous causes of obesity including physical, psychological, hereditary, and environmental factors. Smith and Fremouw (1987) reviewed the causes of obesity. They reported that the results of Van Itallie (1977) attribute only 5% of obesity to brain damage, hereditary disease, and endocrine dysfunction. The cause of obesity for the remaining 95% they explained through various theoretical perspectives. Among these are inactive lifestyles and chronic over-ingestion of food (Van Italie & Campbell, 1972), eating in response to arousal states (Rodin, 1982),

availability of highly palatable foods (Sclafani and Springer, 1976), low levels of physical activity, heredity that dictates body size, number of fat cells, efficiency of storage, and metabolism (Foch & McClearn,1980), and environmental factors - - particularly overfeeding during critical periods of fat cell development (Hirsch & Knittle, 1970).

2.2 Maintenance of Obesity

Ongoing obesity, although influenced by the factors that establish obesity, may be maintained by another set of variables. Smith and Fremouw (1987) stated, "Obesity itself alters body chemistry, size and number of fat cells, and metabolic activity "(p.453)- - each contributing to the maintenance of obesity. Smith & Fremouw (1987) found that poststimulus salivary output and insulin are higher in obese than non-obese people, thus, enhancing fat storage by converting sugar into fat more rapidly and acting as an appetite inducing mechanism.

Metabolism plays a number of roles in obesity. Metabolically, fat tissue does not burn as many calories as lean tissue. Due to the proliferation of fat tissue in obese individuals, their metabolic rate is slower than that of non-obese individuals. Dieting does not reduce the number of fat cells, only the size of fat cells. Dieting, especially repeated dieting,

is associated physiologically with the maintenance of obesity. Low calorie diets reduce the T3 hormone and O2, thus reducing the metabolic rate. Furthermore, the metabolic rate decreases more rapidly with each successive diet.

The physiological processes described above (i.e. metabolism, fat cells, and body chemistry) hinder one's weight loss. Often those dieters affected by these processes become restrained eaters. They carefully and precisely monitor their eating behavior and weight. Ironically, the degree of dietary restraint significantly correlates with binge eating (Hawkins and Clement,1980), thus interfering with their efforts to lose weight.

It is clear that the onset and maintenance of obesity are complex issues in physiological terms alone. The physiological effects of obesity are significant as well as the cultural and psychological effects.

2.3 Physical, Psychological, and Cultural Effects of Obesity

The effects of obesity are as varied as the causes. Obesity has been linked to medical conditions such as high blood pressure, heart disease, diabetes, liver disease, gall bladder disease, digestive diseases, osteoarthritis, endocrine disorders, and

cancer (Matz, 1987; Smith and Fremouw,1987). Maltz (1987) suggested that young adults who are 30% over their ideal body weight have a 50% greater risk of mortality than their normal weight counterparts. While these health risks are commonly associated with obesity, the research is controversial. Two studies reviewed by Smith and Fremouw (1987) suggested that those who are severely obese or severely underweight have an increased mortality risk. The studies suggested that the middle 60%-80% demonstrate no relationship between fatness and mortality; nonetheless, obesity has been associated with disease.

Along with the medical complications of obesity there are also psychological repercussions. Although the research does not find significant differences in the psychological profiles of normal weight and obese individuals (Stewart & Brook, 1983), obesity itself affects one's quality of life. Minirth, Meier, & Hemfelt (1990) suggested that, typically, for the obese person, involvement in physical and social activities becomes restricted due to their size. Minirth et al. (1990) suggested as well that obese persons suffer from "interpersonal rejection in romantic relationships, friendships, and frequently even within the family" (p.59). They suggested that the negative impact that obesity has on their activities and relationships results in lower self-

esteem. Drake (1988) stated, "previous research has found obese subjects to have lower self-esteem scores than those of a matched control group; however, the differences have not been statistically significant" (p. 1582).

Beyond the personal limitations that obese individuals set on themselves, there are also societally imposed limitations. Obese individuals are discriminated against. Allon (1975, 1979) suggested that in the United States, there is a bias against obese persons regardless of age, sex, race, and socioeconomic status. Minirth et al. (1990) stated, "statistical research demonstrates that obese people are less likely to be hired, to be promoted, or to receive raises" (p.58).

Not only is there evidence of discrimination, but there is also a cultural pressure to be thin, particularly for women. In the United States, the advertising, retailing, and entertainment industries dictate the standard of beauty for women. Silverstein, Perdue, & Peterson (1986) conducted a study that examined these standards. He found that curvaceousness in females decreased dramatically since 1901 and the standard for attractiveness has become significantly thinner since 1950. Wooley and Wooley's (1979) research found that by age five, girls have been "socialized to hate obesity and accept a cultural

standard for thinness that is dangerously close to the minimal required weight for reproduction" (cited by Steiner-Adair, 1986, p.101).

One might expect that the discrimination and pressure to be thin may cause some psychological disturbance. The repercussions due to one's obesity place an additional stress on the individual and likely interfere with a healthy self-concept. Furthermore, they entice the obese person to diet, which as mentioned earlier, can "prime" one for future weight gain. Because of the realistic complications from obesity and cultural pressure to be thin, many obese individuals seek treatment for their condition.

2.4 Treatment of Obesity

The diet industry is a 33 billion dollars a year business (Beck,1990). A review of the current therapies for obesity revealed four major classes: reduced calorie diets, exercise programs, behavior modification, and behavioral modification combined with other treatment modalities and medical intervention.

Diets range from individualized plans developed through a nutrition counselor to formal programs involving pre-packaged food. The very low calorie diets began with liquid protein in the 70's and continued with the more recent protein sparing

modified fasts. Holmes, Zysow, & Delbanco (1989) found that while reduced calorie diets and modified fasts produced weight loses, neither was successful in maintaining those loses.

While exercise is often deemed the best predictor of successful weight loss and maintenance, motivation to engage in exercise is low (Holmes et al.,1989). It is difficult to compare weight loss obtained through diet and weight loss obtained through exercise because exercisers lose fat tissue while dieters lose both fat tissue and lean body mass.

Medical intervention ranges from medication to more invasive treatments such as bypass surgery, jaw wiring, intragastric balloon implant, and the cosmetic surgery, lyposuction. There are several medications used to produce weight loss. A study conducted by the Federal Drug Administration found that the weight loss obtained through the use of these medications was "trivial" compared to the risks involved (Holmes,1989,p.612). While the more invasive medical treatments produce some of the highest weight loss results, there is a paucity of research regarding the long-term maintenance of such weight losses (Holmes et al.,1989).

Behavioral programs are the most common psychological approach to the treatment of obesity. These programs date back to the early 70's. In the

programs reviewed by Brownell and Jeffery (1987), all the behavioral programs were successful in achieving weight losses. Short-term follow-up (3 to 15 weeks) also yielded positive results. However, long-term follow-up indicated a "trend toward a consistent weight gain over time" (Brownell and Jeffery,1987,p.359). This is not an uncommon finding.

2.5 Relapse in Weight Management

Relapse is very common following weight loss. Friedmann (1988) estimated that "90% of all patients who lose more than 25 lbs. in a diet program regain that weight within three years" (p.107).

Examining relapse in weight loss is unlike examining relapse in smoking and drinking because weight loss is not a behavior (Sternberg, cited in Marlatt & Gordon, 1985). The connection between weight loss and eating behavior is inferred. The discussion of the physiological aspects of obesity earlier made it apparent that it is not only eating behavior that influences weight loss and maintenance.

Relapse in weight control is difficult to quantify (Marlatt & Gordon, 1985). Marlatt & Gordon (1985) raised the questions "how long the weight must be kept off in order to consider it maintained and how much weight must be regained in order for it to be considered a relapse?"(p.251). Relapse and

maintenance are not clearly defined concepts. However, Marlatt & Gordon (1985) presented definitions used by some of the more prominent obesity researchers: "*successful losers: individuals who lost 20 or more pounds and kept it off for a year or longer (Leon & Chamberlain, 1973a, 1973b); *regainers: individuals who lost weight, but regained 20% or more (Wing & Jeffrey, 1978); * maintainers: individuals who regained less than 20% (Wing & Jeffery, 1978); * good maintainers: individuals who regained less than 30% of weight previously lost (Gormally, Rardin, & Black, 1980)" (p.524). Marlatt & Gordon (1985) presented one final definition of relapse focusing on specific behaviors: relapse could be defined as a violation of one or more eating behavior rules.

Maintenance of weight loses is not only difficult in and of itself, but it is also very difficult to research. Beasley (1989) suggested that a one-year follow-up for weight maintenance is probably inadequate. He suggested that a five-year follow-up is the minimum time needed to study adequately the regulation of body weight. Although other professionals agree that a five-year follow-up would provide a more realistic assessment of maintenance, nonetheless, a one-year follow-up does provide useful information (Hendee, 1989).

Brownell and Jeffery (1987) illustrated some of the challenges facing researchers. Following the completion of a program, one's pattern of weight change over time is difficult to track. For instance, at a two-year follow-up, clients may be at the same weight at completion of the program. However, one client may have gained and re-lost the weight while another remained stable through the follow-up period. Without knowing the pattern of weight change, what can we validly conclude?

Participation in subsequent weight loss programs may confound the data being gathered. Brownell and Jeffery (1987) suggested that "detailed information should be collected on weight fluctuations, participation in other programs, self-administered diets, and life events between assessments" (p.356). Thus, studying relapse in weight loss is a very complex issue. The pervasiveness of this problem necessitates its study.

2.6 Summary

Obesity is a prevalent health issue in the United States having both physical and psychological ramifications. The range in treatment modalities has been vast with most achieving some success in weight loss. However, the relapse rate is exceedingly high, and the continuous weight cycling can be more damaging

than obesity itself, both physically and psychologically.

While psychology has played an increasingly important role in the treatment of obesity in terms of behavior management, it has paid less attention to the dynamics which may contribute to obesity and relapse. It is this arena that this author investigated.

CHAPTER 3: THEORETICAL AND EMPIRICAL UNDERPINNINGS

3.0 Psychodynamic Developmental Overview

Psychodynamic theory rests on the premise that early development plays an important role in the evolution of psychic structure. Psychic structure is a term used to designate the internal apparatus that guides our psychological life, primarily our internal representations of self and other. This intrapsychic structure develops initially within the mother-infant relationship. A mother's provision of empathic attunement and optimum frustration allows for the development of the infant's psychic structure and its evolution through developmental stages.

Early in life, the infant begins to become aware of her or his subjective self and minimally aware that she or he is dependent on another to meet her or his needs (Nicholson, 1988). As Winnicott (1958) suggested, the mother provides a "holding environment" to meet the needs of the infant. Nicholson (1988) stated, "the achievement of a gratifying relationship with mother allows the infant to turn his energy to the outside" (p.29). She further stated, "Although it is important for experiences to be primarily gratifying, optimal frustrating experiences foster increased separation. Early in life the infant begins to perceive the primary object as separate from the self" (Nicholson, 1988, p.31).

Separation and individuation represent the lifelong struggles of negotiating autonomy and dependence and closeness and distance in interpersonal relationships (Nicholson, 1988). During the separation and individuation stage, the attainment of object constancy is one of the major tasks. Nicholson (1988) stated, "object constancy depends upon the gradual internalization of a constant, positive, internal image of mother"(p.35). Transitional objects transfer the soothing functions of mother to an inanimate object that is available when mother is not. In order for the child to tolerate the separation from mother, the transitional object serves a soothing function. Eventually, the child is able to represent the mother internally during times of separation and in essence to recreate internally the soothing function of mother.

Nicholson stated, "when the bonding within this holding environment fails, the infant experiences discomfort and/or frustration in his feelings of well-being and, for the first time, becomes aware of his vulnerability to the environment" (1988,p.27). When traumatic separations occur, the child is able to produce neither the memory of mother nor the transitional object for self-soothing.

Throughout these stages, the emphasis is on attunement with the infant: that is, appropriately

meeting and frustrating needs based on the infant's developmental stage. This attunement plays a critical role in the attachment/bonding of the child. Disruptions in the attachment lead to disruptions in the infant's internalization of psychic structure. Deficiencies in an infant's psychic structure may not become apparent until the individual needs to function independently without the supportive object (Nicholson, 1988). A disturbance in early attachment affects one's ability to negotiate separation from attachment figures. It is the disruption in this process that seems relevant to eating disordered clients.

The following explores more fully the usefulness of self psychological concepts in explaining compulsive-like eating behavior, a behavior that appears to have a contributing role in obesity and relapse. Self psychological concepts explain the process of attachment and the role it plays in eating behavior.

3.1 Self Psychological Theory

Healthy attachment occurs, according to self psychological theory, as a result of "empathic attunement." Kohut (1977) stated:

> When a child's psychological balance is disturbed, the child's tensions are, under normal circumstances, empathically perceived and responded to by the self-object. The self-object, equipped with a mature psychological organization that can realistically assess the child's need and what is to be done about it, will include the child into its own psychological organization and will remedy the child's homeostatic imbalance through actions (p. 85).

According to self psychological theory,if development proceeds without incident, the adult will have an adequate self-structure to meet age-appropriate needs. One important structural development is the ability to sooth one's self. Internal self-soothing structures develop out of merging with a soothing selfobject. The self-soothing structures of the selfobject, transmuted and internalized, become a part of the self-structure. Glucksman stated, "the child's capacity for self-soothing is a consequence of empathic maternal

responses that create a healthy matrix of self-objects" (p.153).

The unhealthy self develops out of repeated empathic failures to meet the selfobject needs. The repeated empathic failures do not provide the sophisticated structure in which the self needs to merge. Thus, transmuting internalizations do not occur. The self fails to develop internal structures of self-soothing to begin to regulate, in a mature way, its own needs of mirroring, twinship, and idealization. In essence, a developmental arrest occurs. And, as Chelton and Bonney (1987) stated:

> The psychic functions which have to do with the internal regulation of feelings of continuity and cohesion of self, with self-esteem and meaningful goals, with modulation of affect and maintenance of ideals are overwhelmed either because they were originally deficient for ordinary external circumstances or because because external stressors have become too great(p.41).

Developmental arrest leaves the self markedly dependent on selfobjects in that the self needs selfobjects to meet archaic needs rather than age-appropriate needs. This makes the self particularly vulnerable to empathic breaks because the demands on the selfobject exceed the selfobject's ability to meet

them. As Baker and Baker (1987) suggested, "the selfobject relationships remain archaic and generally interfere with interpersonal functioning" (p.5). The relationship is strained because even what the "outside observer" might consider to be a minor empathic break, the unhealthy self experiences very poignantly.

When an empathic break occurs - - that is, an empathic failure on the part of the selfobject to meet the mirroring, idealizing, and twinship needs of the self, the self responds affectively. Wolf (1988) suggested that "faulty selfobject experiences facilitate the fragmentation and emptiness of the self"(p.11). The three affective states most often discussed in self psychological literature are disintegration anxiety, depleted depression, and narcissistic rage. All result from empathic failures.

Disintegration anxiety is the loss of a sense of cohesion. When the self has needs that it is unable to self-regulate and there is an absence of the ability to merge with a soothing self-object, the demands on the self-system exceed its capabilities. When the demands exceed the capabilities of any system, this creates tension. The self experiences this "tension" as disintegration anxiety.

Baker and Baker (1987) suggested, "when the unhealthy self experiences a disruption of a

selfobject relationship or a narcissistic insult, even though it may seem very minor to the outside observer, the self may experience depleted depression or disintegration anxiety" (p.5). Depleted depression is the self's sense of being deflated. Essentially it occurs in the absence of responses that provide hope, security, and guidance. Depleted depression occurs in the absence of the opportunity to merge with an idealized selfobject that would deliver the self from challenges beyond its capabilities. When there is no merger with an idealized selfobject, there is a sense of hopelessness and resignation. In self psychological terms, this is the experience of depleted depression.

Narcissistic rage stems from a lack of affirmation of the self, the failure of the selfobject to echo back a sense of one's self. A chronic lack of a sense of one's self psychologically threatens one's survival and in a sense neglects to acknowledge one's own existence. Under such a threat to survival, it is natural to lash out in aggression for the sake of self-preservation. Instinctively, people do so when their physical being is threatened; likewise, their psychological being lashes out with what Kohut termed narcissistic rage. Deitz (1989) suggested, "the rage and despair were seen as disintegration products" (p. 500).

According to self psychological theory, these three affective states - - anxiety, depression, and rage - - are disintegration products resulting from empathic failures which leave basic selfobject needs unmet. In the wake of these emotions, the unhealhy self lacks the ability to self-soothe.

The unhealthy self with it's inability to self-soothe still has mirroring, twinship, and idealization needs. When an empathic break occurs, these needs go unmet, and the unhealthy self, lacking in self-soothing structure, experiences intolerable affective states.

The experience of these affective states - - disintegration anxiety, depleted depression, and narcissistic rage - - motivates the self to remedy them in an effort to restore a sense of cohesion. As Baker and Baker (1987) put it, "fragmentation or enfeebled depression causes the self-as-initiator-of-action to do something to end (or to develop some defense mechanism against) those intolerable states: to restore to the self-experience a sense of coherence, wholeness or vigor" (p.5). The "remedy" becomes the self's engaging in any action that alleviates the psychological pain of the affective states. Baker and Baker (1987) cautioned that even if the behavior engaged in is self-defeating or self-destructive, it is preferable to those intolerable

affective states. Thus, the behavior that appears symptomatic is actually a substitute selfobject which functions to restore a sense of cohesion. Baker and Baker (1987) stated, "from a self psychological view, then, most symptomatic behavior is viewed as an emergency attempt to maintain and/or restore internal cohesion and harmony to a vulnerable, unhealthy self" (p.5).

According to self psychological theory, empathic attunement is necessary for healthy development. In the absence of empathic attunement, the self misses the opportunity to merge with and to internalize the more sophistocated psychic structure of the selfobject. The capacity for self regulation is arrested, and the self becomes markedly dependent on selfobjects. When an empathic break occurs, the self experiences anxiety, depression, and rage yet lacks the capacity for self-soothing. As a result, the self initiates some action to ameliorate the intolerable affect.

3.2 Self Psychological Concepts Applied to Eating Disorders

In the case of eating disorders, a developmental arrest has occurred. A self-soothing psychic structure remains underdeveloped, and the self initiates eating behavior in order to serve this

function. For self psychological theory, intrapsychic functions remain underdeveloped because of repeated empathic failures. Geist (1989) suggested that the chronic disruption in the "empathic milieu that maintains the integrity of the child's self, prevents the internalization of certain soothing and tension-regulating structures" (p.5). With no sophisticated self-soothing structures available for transmutism, a developmental arrest occurs and the individual remains unable to soothe the self. Glucksman (1989) suggested that obese individuals "overeat in order to reproduce a sensorimotor representation of the mother and her soothing activities, which have not been properly internalized" (p.153).

The self, as Basch (1987) suggested, offsets "traumatic disappointments by learning to promote substitutes for the selfobject experiences they require" (p. 145). Glucksman (1989) cited Goodsitt as stating, "obese individuals have experienced failures in empathic mirroring leading to an inability to self-soothe when feeling anxious, depressed, or lonely"(p.153). Castelnuovo-Tedesco (1985) stated, "personality characteristics frequently found in obese people are, first, that they often use food for self-soothing, substitutive gratification and as a replacement for disappointing objects"(p.163).

Like other selfobjects, food is valued not necessarily for its inherent value but rather for the function it serves in meeting the needs of the self. Early on in life, food serves basic physical needs of nutrition as well as nurturance. The feeding experience brings with it far more than the inherent nutritional value of food. The infant's early experience with mother's feeding is an experience of nurturance. The warmth and softness that envelop the child while feeding - - a literal "holding environment" - - provide comfort, safety, security, and a general sense of one's needs being met. "Since feeding is so central an activity during infancy, every component of the mother-child relationship can become associated with food and eating" (Glucksman, 1989,p.151). Disruptions in this relationship and/or the feeding process can lead to oral fixation. "This means that future emotional distress might result in excessive eating or other oral activities in an attempt to recreate optimal maternal care and comforting" (Glucksman,1989, p.152). Levy (cited by Glucksman, 1989) suggested that individuals "project affect hunger onto food as the tangible form of mother, thereby mothering themselves in order to feel secure and fill up their 'structural emptiness'" (p.152). He went on to say that "food may act as a transitional object for the purpose of defending

against feelings originally connected with separation from mother" (p.152). Nurturance thus intimately tied to feeding is a very powerful connection. Food becomes endowed with qualities of nurturance. Food, valued for the fact that it provides nurturance to the self, is a means of reconnecting symbolically with the early infant-mother attachment.

Other qualities make food an optimal choice to serve as a selfobject. For example, availability is important. Food is, for the most part, always available. When one does not have the capacity to manage one's emotional distress for any length of time, the availability of a soothing selfobject becomes a significant factor.

Another aspect that makes food a suitable selfobject, which goes along with availability, is that food is under the individual's control. The self experiences a selfobject as part of itself always under its control. It would be a narcissistic injury to experience a selfobject as beyond its control. This raises two issues. First, food cannot cause this type of injury since it does not have its own center of initiative. In that sense, it is an appealing selfobject. Second, because food may be readily controlled, perhaps it is a suitable replacement for those selfobjects that have injured one narcissistically by being beyond one's control. That

is, perhaps one seeks such a controllable selfobject following the realization that another selfobject is beyond one's control.

Through its ability to be a "good" selfobject, food can potentially serve as a substitute satisfaction for the unmet mirroring, twinship, and idealization needs. The self, as Basch (1987) suggested, offsets "traumatic disappointments by learning to promote substitutes for the selfobject experiences they require" (p. 145).

Mirroring, twinship, and idealizing are basic needs of the self. Food can potentially be a substitute for unmet mirroring needs. Glucksman (1989) cited Goodsitt as stating, "obese individuals have experienced failures in empathic mirroring leading to an inability to self-soothe when feeling anxious, depressed, or lonely"(p.153).

Food can potentially be a substitute for unmet twinship needs. It can do this indirectly by ameliorating uncomfortable affective states caused by a void in one's sense of belonging. Food can meet twinship needs more directly in the sense that quite often it is food that unites people at social gatherings. Cultural traditions related to food provide one with a sense of belonging.

Additionally, food can potentially be a substitute satisfaction for unmet idealization needs.

Food can "fill" the void caused by depleted depression. It can serve as a means of coping. Thus, when an empathic break occurs leaving one's basic needs unmet, food may serve as a substitute selfobject. Castelnuovo-Tedesco (1985) stated, "personality characteristics frequently found in obese people are, first, that they often use food for self-soothing, substitutive gratification and as a replacement for disappointing objects" (p.163).

Though compulsive eating behavior may serve to restore a sense of cohesion temporarily, it does not serve to foster development. Development occurs when the self merges with a selfobject that has a more sophisticated self-structure. Food cannot offer that. In some sense, food fosters a sense of cohesion, yet the self remains at that stage of developmental arrest. Food, serving a cohesive function, helps just enough to keep the process cycling, restoring comfort without enabling growth. Glucksman (1989) stated, "addictive craving for food results in temporary self-soothing, but fails to build psychological structure or self-cohesion" (p.153). Thus, the empathic break will inevitably occur again, and the self will remain without the structure for effective coping. Once again, the self will turn to food for relief and the process will begin again. The addiction lies in the

provision of relief but no real means of growing beyond the initial structural deficit in the self.

In summary, the self-structure of a compulsive eater is lacking in the ability to self-soothe when basic needs of mirroring, twinship, and idealization go unmet. Because there is a lack of structure for self-soothing, when an empathic break occurs and selfobject needs remain unmet, the self experiences intolerable affective states. Food - - based on nurturing qualities attributed to it and on its inherent selfobject qualities - - serves as a substitute selfobject and restores cohesion. Thus, the symptomatic behavior of compulsive eating serves a significant function in maintaining the self-system. Affect motivated eating behavior not only serves a cohesive function for the self-system, but also has an addictive quality.

3.3 Eating Behavior as Addiction

The following conceptualization of addiction parallels the self psychological perspective that the self initiates action to ameliorate intolerable affects where food becomes the "drug of choice". This occurs when psychic structure has failed to develop appropriately due to inadequately met selfoject needs.

The function of food, for the compulsive eater, may be akin to the processes involved with other

addictions. The "drug" of choice may depend on its "ability to alleviate the addict's most intolerable affective state" (Dodes, 1990,p.407). McDougall (1984, cited by Dodes 1990) stated, "these all represent compulsive ways of avoiding affective flooding...due to unsuspected psychotic anxieties or extreme narcissistic fragility"(p.410).

Dodes (1990) discussed addiction in terms of helplessness and powerlessness impelled by narcissistic rage. Dodes (1990) looked at addiction in terms of "managing omnipotence over one's own affective state"(p.412). He suggested that the "driven" quality behind addictions is motivated by the rage experienced due to the loss of control over one's internal affective state. This loss of control induces a sense of powerlessness and helplessness, which are the hallmarks of psychic trauma (Krystal, 1978 cited by Dodes,1990). Dodes (1990) stated, "Socarides and Stolorow (1984-1985) likewise stressed the central importance of steadily regulable, containable affect for the development and organization of self experience, without which affects become traumatic"(p.401). Dodes (1990) established the connection of helplessness and powerlessness as key features for addicts. In doing so, he cited AA's first step and the serenity prayer, both which

acknowledge powerlessness and helplessness(Dodes, 1990).

Dodes (1990) further stated, "In light of the core narcissistic importance of maintaining psychic control, it is significant that drugs are a device par excellence for altering, through one's intentional control, one's affective state" (p.401). The addictive behavior, an initiation of action to take control of one's affective state, restores some sense of control (Dodes, 1990). While this appears to be somewhat paradoxical because addiction in itself indicates one's being "out of control"(Dodes, 1990), this reflects both ego functioning and a loss of ego functioning.

Dodes (1990) went on to suggest that while there is a degree of narcissistic fragility in addicts, the impairment can occur at any level of development and does not necessarily indicate narcissistic personality disorder.

McDougall (1984) used the term "dis-affected" to describe patients who defuse emotional arousal through action. She suggests that this occurs in response to a mother-child relationship characterized by a double-bind (McDougall, 1984). The mother is "out of touch with the infant's emotional needs, yet at the same time has controlled her baby's thoughts, feelings, and spontaneous gestures"(McDougall, 1984, p.391). This

results in an enraged child's struggling for the right to exist (McDougall, 1984). Dodes (1990) concured with this stating, "addictive behavior represents the repeated fighting and (transient) winning of the struggle" for autonomy (p.411). Thus, the addictive behavior is not only employed to ameliorate the intolerable affect, but also serves as a "coup d'etat" against the mother, consequently establishing, if only briefly, a sense of the right to exist independently.

Furthering the concept of addiction as a struggle for individuation, Krystal (1982) suggested that there is a disturbance in self-representation: internal affective functions are viewed as part of the maternal object. Thus, there is no effort to regulate internally these affects as they are in part perceived as external and it would breach the role of the caretaker (Krystal, 1982).

Chelton and Bonney (1987) suggested that behaviors repeated in order to create or diffuse particular affective states and thereby preserve a cohesive sense of self are potentially addictive. They suggested that this may occur through "the ingestion of certain chemicals or the use of our physiological processes (and sensations)" (Chelton and Bonney, 1987, p.40). In the case of compulsive overeating, food may ameliorate intolerable affective states. Chelton and Bonney (1987) stated, "the use

of the sensations, affects, and feelings related to the eating process, that is, tasting, chewing, smelling, swallowing, fullness, and so on is or may be helpful on days when severe blows to self esteem are experienced" (p.41). The biochemical and physiological processes involved in the ingestive and digestive processes may emulate the stimulation or soothing reminiscent of early caretaking figures (Chelton and Bonney,1987). Again the compulsive eating temporarily restores a sense of harmony to the self, but does not foster development.

Glucksman (1989) stated, "addictive craving for food results in temporary self-soothing, but fails to build psychological structure" (p.153). Using food in an addictive way, Chelton and Bonney (1987) stated, "isolates the individual from necessary and legitimate dependence on others for healthy validating, confirming, idealizing, and calming interaction" (p.40). While simulating the sensation of early soothing relationships, the addictive substance does not "provide the human empathy and understanding needed for further self development" (Chelton and Bonney, 1987, p.41).

Development occurs, according to self psychological theory, when the self merges with a selfobject that has a more sophisticated self structure. Its absence stifled growth. Thus, the

empathic break that triggered the intolerable affects will inevitably occur again, and the self will remain without adequately developed self-soothing structures. Once again, the self will turn to food for relief, and the cycle will begin again. The nature of the addictive process lies in the provision of relief from intolerable affect but results in no real means of growing beyond the initial structural deficit.

3.4 Research Linking Affect to Eating Disorders

The function of food as a provision of relief from intolerable affect has been evidenced in some empirical research with eating disorders. Kaplan & Kaplan (1957) discussed overeating "as a means of sedation, diminishing anxiety, counteracting feelings of being unloved, expressing hostility, and avoiding competition" (cited by Van Strien et al.,1985,p.339). Steinberg, Tobin, and Johnson (1990) in their study of bulimics, suggested that "studies have found a significant decrease in anxiety and/or negative affect following a binge-purge episode, supporting the notion that bulimic behavior serves a mood-regulating function"(p.51). In its ability to soothe the self, food restores cohesion. Allowing the self to merge during times of stress with a soothing selfobject reduces the sense of fragmentation caused by the

empathic break. The compulsive eating restores a sense of harmony to the self.

Other researchers have linked affective states with compulsive-like eating behavior. Marcus, Wing, and Hopkins (1988) compared binge eaters with non-binge eaters utilizing the Symptom Checklist, Beck Depression Inventory, Cognitive Factors Scale, and Eating Inventory. The binge eaters reported more psychological distress and maladaptive cognitions. In particular, they demonstrated interpersonal sensitivity, depression, obsession-compulsion, hostility, and anxiety. Van Strein, Frijters, Roosen, Knuiman-Hijl, and Defares (1985) found similar characteristics of psychological distress. These authors stressed the significance of emotional eating as a causal factor in overweight.

Both research groups came to some conclusions about the treatment of compulsive eating motivated by affect. Marcus et al. (1988) concluded that binge eaters were more likely to drop out of a modified behavioral treatment program. Van Strein et al. (1985) suggested that emotionally motivated eating could best be understood from a psychodynamic model. Glusksman (1989), found that "unresolved psychodynamic conflicts ('negative' psychodynamics) were more frequently observed with overeating and weight gain, while psychodynamic conflicts that had been resolved

('positive' psychodynamics) were more frequently connected with normal eating behavior and weight loss"(p.156).

Rodin (1982) suggested that arousal states such as anger, anxiety, and boredom may contribute to eating behavior (cited by Smith, 1987). Johnson, Connors, and Tobin (1987) identified four affect-laden precipitants to binge eating. Although they studied bulimics, the compulsive eating behavior exists in both the bulimic and the obese. They suggested that one's vulnerability to engage in compulsive eating is precipitated by the affective states that come from difficulties with problem solving, anger, the capacity to be alone, and self-nurturance.

Some studies have explored emotional reactivity in both the obese and normal weight populations. Lowe and Fisher (1983) cited several studies supporting the idea that obese individual are more emotionally reactive than normal weight individuals. They stated, "studies on reactivity have consistently found that obese individuals experience negative emotions more often and with greater intensity than do normal weight persons"(p.139).

Additional literature supports the link between emotional eating and obesity. McKenna (1972, cited by Lowe and Fisher, 1983) found that anxiety led to increased eating in obese individuals and to decreased

eating in normal weight individuals. However, other studies conducted with the obese population (Schacter, Goldman, & Gordan, 1968 and Abramson & Wunderlich, 1972) indicated no change in eating behavior under high and low anxiety conditions(cited by Lowe and Fisher, 1983).

Lowe and Fisher (1983) reviewed Slochower's work (1976) which "hypothesized that emotional eating would be likely to occur only when the source of the obese person's emotional arousal was unclear" (p.136). Slochower (1976) found that overweight subjects increased their food consumption only when they could not label the source of their emotional arousal, but not when its source was clear. The amount eaten by normal weight subjects was not affected by the availability of a label to explain their arousal. In a subsequent study, Slochower and Kaplan (1980) found that the absence of a label and the inability to control the source of arousal contributed independently and additively to increased eating in obese but not normal weight subjects"(Lowe and Fisher 1983,p.136).

Lowe and Fisher (1983) conducted a study to examine the relationship between emotional eating and obesity in a naturalistic setting. They hypothesized that, "the abundance of complex and ambiguous events encountered in the natural environment should evoke

considerably more emotional eating in obese than in normal-weight subjects"(p.137). They found support for the emotional eating during snack times but not during mealtimes.

In addition to the psychological research that supports the connection between emotional eating and obesity, there is now some physiological research to support this hypothesis as well. Wing, Blair, Epstein, and McDermott (1990) examined the changes in glucose metabolism in normal weight and obese subjects under psychological stress. They found that "stress significantly delays the peak glucose response in normal weight subjects but not in obese subjects " (p.698). Other studies have shown that in normal weight individuals, "psychological stress delays gastrointestinal transit time" (Thompson, Richelson, & Malagelada, 1982, 1983, cited by Wing et al., 1990,p.696). This delay in gastrointestinal transit time decreases food intake (Hunt, 1980; McHugh & Moran, 1979, cited by Wing et al., 1990). This provides support for the idea that there is a decrease in food intake under stressful conditions for the normal weight individuals. However, more research is necessary to provide support for the antithesis in obese individual.

The preceding research suggests that compulsive eating remedies the affective states generated by

unmet needs, thus restoring a sense of cohesion. This link between affective states and compulsive eating lends support to the self psychological concept of symptomatic behavior arising out of affective states. This process arises out of structural deficits that occur due to repeated empathic failures on the part of the selfobject. Therefore, an exploration of the quality of object relations and psychic structure is a natural progression in understanding eating disorders.

3.5 Research Exploring Object Relations and Eating Disorders

The following studies suggest that there are some object relations deficits in eating disordered women, though empirical studies on object relations in eating disordered women are limited. While most of the research focuses on bulimics and anorexics, the findings are relevant to obesity in terms of understanding object relations across the continuum of eating disorders.

Raynes, Auerbach, and Botyanski (1989) studied the level of object representation and psychic structure in obese women. They based their study on the structural deficit and external regulation hypotheses of addiction. The structural deficit hypothesis suggests that "addicts" predisposed to experience painful affects are unable to regulate

these affects internally due to deficits in psychic structure (Raynes et al., 1989). The external regulation hypotheses take this one step further by suggesting that these "addicts" turn to external sources to find substitutes to regulate their intolerable affect (Raynes et al., 1989). As Raynes (1987) pointed out, while most of the literature supporting these hypotheses examined drug abusers, "there is evidence that obese persons use food to regulate painful affects externally (Chelton & Bonney, 1987) and that foods themselves can pharmacologically alter mood (Wurtmann, Wurtmann, Growdon, Henry, Lipscomb, & Zeisel, 1981), both of which support the external regulation hypothesis" (p.292). There is a paucity of literature investigating the structural deficit hypothesis for obese persons. Therefore, Raynes et al.(1987) conducted a study to find evidence of psychic structural deficits in obese persons. They administered the Blatt Family Interaction Questionnaire to 22 overweight and 24 normal weight women. Their results indicated that the obese group had a mean level of object representation lower than that of the normal weight group(Raynes, 1987).

Several studies have shown a link between bulimic eating patterns and object relations deficits. Becker, Bell, and Billington (1987) studied ego functioning in 547 bulimic and non-bulimic women.

Using the Bell Object Relations Inventory, they found that the bulimic group showed greater deficits on the attachment scale, which indicated ambivalent interpersonal relationships and fear of object loss. The egocentricity scale, which assesses suspiciousness and manipulativeness toward others, appeared more pathological as eating patterns became more disturbed(Becker et al., 1987). Becker et al. (1987) suggested that these findings supported the psychoanalytic theory linking eating disorders to object relations deficits.

Heesacker and Neimeyer (1990) investigated the level of object relations and cognitive structure in eating disordered women, specifically bulimics. They found that women with higher levels of eating disorder showed greater disturbances in object relations. In particular, these women showed greater deficits in attachment and social competence as measured by the Bell Object Relations Inventory (Heesacker & Neimeyer, 1990). Heesacker and Neimeyer (1990) concluded, "these results support clinical reports (Bruch, 1973) and empirical research (Bell et al., 1987) that link eating disorder to fear of abandonment and autonomy as reflected in current interpersonal relationships" (p.424).

Another study focused on attachment and separation difficulties in eating disordered women.

Armstrong and Roth (1989) utilized Bowlby's attachment theory to assess attachment and separation in bulimic and anorexic women. They stated, "the ability and desire to depend on someone in time of stress is a fundamental human quality which endures over the lifespan and is associated with healthy functioning" (p.143). When attachment is disturbed by "fragile, frustrating, or unpredictable caregivers," the infant becomes "anxiously attached," resulting in fearfulness, inhibited self-reliance, and separation depression (Armstrong & Roth, 1989). Eating disorders can be seen as a reaction to the "paralyzing sense of ineffectiveness"(Bruch, 1973, cited by Armstrong et al., 1989,p.144) in recruiting attachment figures to respond to one's needs. Armstrong and Roth (1989) stated, "clinical studies have noted an oversensitivity to maternal separation in the early history of eating disordered patients (Sours, 1974)" (p.141). Armstrong and Roth assessed 27 eating disordered subjects by using the Hansburg SAT. From their research, they concluded:

> Disturbances in attachment are also functionally associated with specific eating-disorder behaviors. We suspect that for some individuals, restrictively dieting provides a means of sustaining attachment, at a safe distance, without acknowledging this need. Binging may

fill an emptiness for nurturance and may be a mechanism for self-soothing for individuals who cannot trust that an intimate relationship with significant others can meet these same needs" (Armstrong & Roth, 1989, p.153).

The literature suggests that eating disordered women show some indications of object relations deficits. Using this research as a platform, the present study continue to examine further the theoretical link between eating disorders and object relations deficits.

3.6 Summary

Psychodynamic theory suggests that intrapsychic structure develops initially within the primary object relationship. Disturbances in this primary attachment can interfere with the internalization of a healthy object and the healthy development of psychic structure. In self psychological theory, failures to meet selfobject needs due to repeated empathic failures interfere with the development of internal self-soothing structures. Therefore, when a narcissistic injury occurs, the self experiences disintegration anxiety, rage, and depression with no means for self-soothing. The self initiates some action in order to ameliorate these intolerable

affects. In the case of obesity, the self eats in order to soothe the self. The nature of food and its use make it a "good selfobject" while the process of ingestion can physiologically and psychologically recreate the early infant-mother attachment.

There has been some empirical research to support the theoretical link between affect and eating behavior. Additionally, some authors suggest that this process of sedating intolerable affect through eating behavior has the characteristics of an addiction. The addiction comes from finding relief from intolerable affect without the opportunity to foster development. Without intrapsychic growth, the self is stuck in a cycle of narcissistic injury, affective flooding, and eating behavior for affective relief. The lack of provision for intrapsychic development leaves the self vulnerable to repeated injury and repeated inability to engage in self-soothing. Empirical research lends some support to this concept Some researchers found object relations deficits in eating disordered women.

3.7 Research Rationale and Hypothesis

While psychoanalytic theory proposes a link between eating disorders and object relations deficits, most of the literature focuses on object relations deficits in bulimic and anorexic women

rather than in obese compulsive overeaters. This researcher found limited empirical research on object relations and the quality of attachment as they relate to the obese overeater. Based on the findings of the empirical literature for bulimics and psychological theories of obesity, this study speculated that similar empirical findings will arise for the obese population. That is, disturbances in object relations, particularly attachment, will characterize the obese population. More specifically, the obese population who relapse following weight loss will show greater object relations deficits than those who do not relapse.

The relapse literature focuses primarily on those addicted to drugs and alcohol. There is little research investigating the level of object relations for the obese population with respect to relapse. Therefore, this study explored the level of object relations in the obese population, comparing those who relapse with those who do not relapse.

The comparison, based on scores derived from the Bell Object Relations Inventory, explored three hypotheses: 1) generally, one might expect to find greater object relations deficits in women who relapse than in those who maintain their weight loss; 2) more specifically, one might expect the insecure attachment score to be greater in those who relapse as compared

to those who do not relapse; 3) finally, those who endorse using food to soothe themselves are likely to have greater deficits in object relations, particularly as demonstrated by insecure attachments.

CHAPTER 4: METHODOLOGY

4.0 Subjects

The subjects came from a pool of approximately 600 people who registered for the Medifast program during the past four years at Resurrection Hospital in Chicago, Illinois. The researcher screened participants in this program to include only females, reducing the number of subjects to 474.

The Medifast program is a medically supervised modified fast. Participants substitute their usual diet for a protein supplement and are gradually introduced to regular food after substantial weight loss. Along with medical management, participants attended educational groups focused on nutrition, exercise, and behavior modification.

4.1 Procedures

These prospective subjects, contacted by mail, received an informed consent form, a general information questionnaire, and the Bell Object Relations Inventory. The general information questionnaire asked for demographic information, historical information that may have influenced their weight, and information related to their maintenance of weight losses. The Bell Object Relations Inventory sought information about their psychological

functioning. The researcher numbered the questionnaires in order to keep each set of data together. Participants returned the signed consent form along with both completed questionnaires in the stamped envelope provided.

4.2 Measures

The Bell Object Relations Inventory is a self-report paper and pencil inventory. It consists of 90 descriptive statements to which one responds "true" or "false" based on one's "most recent experience." The Inventory assesses ego functioning in terms of object relations and reality testing. It evaluates Object Relations across four subscales: Alienation (Aln), Insecure Attachment (IA), Egocentricity (Egc), and Social Incompetence (SI). It assesses Reality testing across three subscales: Reality Distortion (RD), Uncertainty of Perception (UP), and Hallucinations and Delusions (HD).

The alienation subscale indicates a "lack of basic trust in relationships, inability to attain closeness, and hopelessness about maintaining a stable and satisfying level of intimacy" (Bell et al.,1986, p.738). Bell (1991) suggested that high scorers are often guarded, isolative, and hostilely withdrawn. He stated that elevations are often found in severe

personality disorders and rarely found in high functioning adults.

The insecure attachment scale indicates painful interpersonal relations, sensitivity to rejection, and fear of object loss (Bell et al., 1986). Bell (1991) stated that this scale reflects desperate longings for closeness, concerns about being accepted, poor toleration of separations and losses, and vigilance for potential signs of abandonment. Elevations on this scale are commonly associated with avoidant, compulsive, dependent, or passive-aggressive personality disorders (Bell, 1991). High functioning adults and students are likely to have elevations on this scale.

The egocentricity subscale indicates mistrust of others' motivations, manipulation of others for self-centered aims, and a view that "others exist only in relation to one's self" (Bell et al., 1986, p.739). Tending to be self-protective and exploitative towards others (Bell, 1991), high scorers are likely to be intrusive, coercive, and demanding with no real regard for others' feelings (Bell,1991). Bell (1991) stated, " a single elevation on this scale has been noted in antisocial, narcissistic and histrionic personality disorders and in psychotic disorders where paranoid projections and hostility are common" (p.13).

The social incompetence subscale reflects a difficulty in making friends, social insecurity, an absence of close relationships, and unsatisfactory sexual adjustment (Bell et al., 1986, p.739). Bell (1991) suggested that high scorers experience relationships as bewildering and unpredictable. Elevations have been found in adults with chronic psychotic disorders, male undergraduates, and in males with gender identity confusion (Bell 1991).

The reality distortion subscale indicates severe distortions of external and internal reality, bizarre somatic concerns, confusion, and paranoid beliefs (Bell, 1991). Elevations are typically found in borderline, schizotypal, and paranoid personality disorders as well as in substance abuse populations (Bell, 1991).

The uncertainty of perception subscale indicates "a keen sense of doubt about their own perception of internal and external reality" (Bell, 1991, p.15). Confused about their feelings and the feelings and behavior of others (Bell, 1991), they are often indecisive, and their social judgement is impaired (Bell, 1991). Their principal defense is denial, and dissociative reactions may be present (Bell, 1991). Elevations are seen in borderline patients, substance abusers, and those with psychotic symptoms.

The hallucinations and delusions subscale indicates the "presence of hallucinatory experiences and paranoid delusions" (Bell, 1991, p.16). Severe breaks from reality are present (Bell, 1991). Bell (1991) stated, "high scorers are most commonly found among schizophrenics and schizoaffective samples with some borderline patients" (p.16).

According to the test manual, the psychometric properties of the Bell Object Relations Inventory indicate a high degree of factorial invariance; relatively free of response bias due to age and sex; internal consistency and split half reliability for all scales is in the good to excellent range (Chronbach's Alpha .78 -.90; Spearman Split-half .77-.90); test-retest reliability; classification reliability; and construct validity based on theoretical substantive, structural, and external validity (Bell, 1991).

The General Information Questionnaire, designed to gather demographic data, data on relapse and maintenance, and factors relevant to weight and weight change, drew some of the questions from their use in previous studies and in this Medifast program. This researcher designed questions to address issues about weight management based on the literature reviewed. These include hereditary factors, physiological

considerations, dieting history, and psychological factors.

4.3 Analysis of Data

Initially, data was analyzed in terms of maintenance or relapse. The subjects were classified as maintainers or relapsers. Maintainers were defined as those reported their current weight to be 5% less than their initial weight upon entering the Medifast program. Relapsers did not maintain 5% of their weight loss.

Once the researcher had classified the groups into maintainers and relapsers, she examined the homogeneity of the groups in terms of demographic data, weight classification, achievement of goal weight, time taken to achieve goal weight, time taken to relapse, weight cycling, participation in other programs, family history, dieting history, birth weight, onset of obesity, emotional eating, and life stress. As necessary, she manipulated these variables to see what other information she could glean from these data.

Once she established the groups, she compared their scores on the Bell Object Relations Inventory at the subscale level paying particular attention to the Insecure Attachment subscale.

The t test analyzed the data. For each group of relapsers and maintainers, the study calculated the means of each subtest on the Bell object relations inventory. It compared the relapsers and maintainers according to each subtest mean.

The researcher also analyzed the data across several different variables. That is, a "t" test compared the object relations subscale means of the following groups: emotional eaters vs. non-emotional eaters; early relapse vs. late relapse; early onset of obesity vs. late onset of obesity; stressful life events vs. no stressful life events; support group participant vs. non-support group participant; maternal obesity vs. non-obesity; paternal obesity vs. non-obesity; sibling obesity vs. non-obesity.

4.4 Summary

In summary, this study utilized a female weight loss population who had completed the Medifast program. It contacted subjects by mail and asked them to complete two questionnaires, one to gather general information and the other to gather psychological data. It chose the Bell Object Relations Inventory was chosen for this purpose. It analyzed the data gathered through the use of a t-test, comparing the Bell Object Relations Inventory subscale means of relapse and maintenance groups.

CHAPTER 5: RESULTS

5.0 Descriptive Data

Of the questionnaires sent to 474 former Medifast patients, sixty-five were returned by the postal service due to incorrect addresses. Thirty-seven potential subjects declined to participate (twenty-six declined by returning the forms blank as instructed on the cover letter, while eleven declined verbally during a follow-up phone call). Forty-two subjects chose to participate by returning the questionnaires. The remaining 379 remained unaccounted for.

Of the forty-two participants, two subjects neglected to complete fully the Bell Object Relations Inventory, and one subject's scores were exceedingly elevated on the Bell Object Relations Inventory. Therefore, the researcher removed these three subjects from the study, leaving a total of thirty-nine participants. Several participants left parts of the general information questionnaire blank, but the study still included them.

The subjects in this study included thirty-nine caucasian females with an average age of forty-two (see Tables 1 and 8). The group was primarily college educated, married, catholic, and of diverse ethnicity (see Tables 2, 3, 4, and 5). The onset of obesity for the group as a whole occured primarily during childhood and adolescence (see Table 6) while the

grade of obesity was in the super and morbid range according to the body mass index (see Table 7). Other group statistics are listed in Table 8.

The study calculated the group mean for each of the subscales on the Bell Object Relations Inventory (see Table 9). The results fell in the non-pathological range for each of the subscales. The highest subscale was Alienation, followed by the Reality Distortion and Social Incompetence subscales.

5.1 Hypothesis

The original research question posed, "what differences are there in the object relations of weight loss patients who relapse and those who do not relapse?" proved difficult to answer. In looking at the self-report relapse data collected on the 39 subjects, 27 subjects had a total or near-total (within a few pounds) relapse; 8 subjects regained 50% or more; and 4 subjects regained less than 30% of their weight losses. Given that based on reported weight gain, the study did not produce an adequate balance of relapse subjects and maintenance subjects to which to apply statistical analysis, it therefore pursued another approach to defining relapse. It looked at relapse based on the subjects' current weight compared to their entering weight. Those who based on their current weight maintained 5% of their

weight loss from their entering weight the study considered to be maintainers. Those who did not were placed in the relapse group. This definition accounted more fairly for the variety of weight classes in the subject pool. That is, subjects ranged, according to the body mass index, from grade 1 obesity to grade 6 obesity(supermorbid obesity). Thus, the study more fairly compared each subject to her own performance. While nearly all subjects relapsed immediately following the program, a greater percentage of subjects had achieved a 5% weight reduction at the time of this study. However, the study defined the term "maintenance" with caution because it gave us little information about the fluctuations in their weight over the years or how long they have actually been able to sustain a 5% weight loss. Additionally, as a self-report measure, it was subject to reporter bias.

Using this definition of relapse and maintenance, 5% of entering weight based on current reported weight, 25 subjects were maintainers and 14 subjects were relapsers. A "t" test compared both groups according to their scores on each scale of the Bell Object Relations Inventory (Alienation, Insecure Attachment, Egocentricity, Social Incompetence, Reality Distortion, Uncertain Perception, and

Hallucinations and Delusions). Results of the "t" test showed no significant differences (see Table 10).

While the data gleaned little additional information in regard to the relapse question, some evidence lent support to other issues raised in this study. One of the primary hypotheses referred to the insecure attachment scale. While the relapse and maintenance groups did not show a significant difference on this scale as hypothesized, there was a significant difference on this scale between subjects who reported emotional eating and those who did not (see Table 11).

The six questions that determined emotional eating asked, "In general do you have a desire to eat when you are: bored or restless; anxious, worried, or tense; depressed or discouraged; feeling lonely; under stress; excited?" Those subjects who endorsed five or more of the six questions were considered to be emotional eaters. Those who endorsed four or less were considered not to be emotional eaters. The study divided the groups in this manner for statistical reasons. There were 21 emotional eaters and 18 non-emotional eaters. The actual tally was as follows: 13 subjects endorsed all six items; 8 subjects endorsed five items; 6 subjects endorsed four items; 7 subjects endorsed three items; 2 subjects endorsed one item; and 2 subjects endorsed none.

A "t"test compared emotional eaters to non-emotional eaters on the Insecure Attachment scale of the Bell Object Relations Inventory. The "t" test yielded a "p" value of 0.017, representing statistical significance (see Table 11).

The significance found lent some support to the connection between level of object relations and eating behavior. Though the assessment of emotional eating has been used in clinical settings, its psychometric properties have not been established; thus, a conservative interpretation of the data is necessary.

5.2 Other Findings

A "t" test also looked at the insecure attachment scale for those who reported increased stressful life events and those who did not. Interestingly, there was a significant difference in the means (Table 11). The non-stress group (11 subjects) yielded a mean of 40.52 while the stress group (26 subjects) yielded a mean of 48.0, and thus a "p" value of 0.037. Though this figure was statistically significant, the reduced number of subjects and the imbalance of subjects made it suspect. Additionally, the measure for determining stress was not a standardized measure and relied solely on one question. Yet, given that statistical significance was found, this raised questions in

regard to the stability of attachment in terms of dynamics and in terms of the stability of the attachment scale on the Bell Object Relations Inventory.

Finally, an unexpected finding, those who attended support groups (9 subjects) attained a higher mean (54.17) on the Egocentricity scale than those who did not. Those who did not attend support groups(28 subjects) attained a mean of (45.12). The "t" test yielded a "p" value of 0.029, which was significant.

The "t" tests comparing maternal obesity vs. non-obesity, paternal obesity vs. non-obesity, sibling obesity vs. non obesity, early onset obesity vs. late onset obesity, and early relapse vs. late relapse did not show significance.

CHAPTER 6: DISCUSSION AND CONCLUSIONS

6.0 Discussion and Implication of Results

This study explored object relations in an obese population. An attempt made to discriminate between the level of object relations in those who maintained their weight losses and those who relapsed hypothesized that the two groups would differ in terms of their quality of attachment. The results did not support the theoretical assertion about the contribution that insecure attachment plays in relapse in an obese population.

A number of factors may have contributed to this finding. First, the study may not have adequately differentiated the comparison groups (maintainers and relapsers) from each other. That is, in order to classify a subject as a relapser or maintainer, the study modified the definition of each to a 5% weight difference between current weight and weight upon entering the weight loss program. This was a very generous definition, one which this author took the liberty of using due to the exploratory nature of the study and to the fact that the subject pool did not allow for more stringent criteria. As the literature suggests, maintenance and relapse are not clearly and universally defined concepts. However, a more conservative definition, using 20% as a cutoff for

regaining weight losses, might have more clearly discriminated between the groups. Additionally, the study could not adequately document the pattern of weight changes since completing the program since it relied on the subject's recall. Without knowing the pattern of weight change, it is difficult to assign members to a group validly. For example, some subjects may cycle through periods of weight gain and weight loss. Depending on their status at the time of the study, they might fall into either classification, relapser or maintainer. Can one validly assign a weight cycler to the same group as someone who remains stable throughout a follow-up period? In the same vein, can one consider a subject who participated in other programs equivalent to a subject who did not? Another variable that made classification difficult was the wide range of obesity found in this subject pool. Subjects ranged from grade two obesity to grade six, super morbid obesity according to the Body Mass Index. This raised the question, "are we comparing the same phenomenon when a grade 2 obese subject and a grade six obese subject are both classified as relapsers or maintainers?" Finally, the population used in this study had varying dates upon which they completed the weight loss program. A uniform time-span would allow for more accurate classification of subjects. Based on these issues raised, further

research may benefit from more stringent parameters in terms of uniform follow-up period, body mass index, and closely monitored pattern of weight changes.

The last recommendation, monitoring patterns of weight changes, presents some challenges of its own. The first difficulty is that of reporter bias when the subjects monitor their own weight changes. .The second difficulty is that of creating a confounding variable if a researcher monitors their weight, since the presence of someone else as monitor may change their weight management behavior.

Reporter bias is an issue raised in this study based on the fact that the data collected were self-reported. Although anonymity was assured, each subject's comfort level with that may have varied and may have altered her responses. Reporting one's weight can be a sensitive issue, and a host of personal motivations may interfere with accurate reporting. Impression management attempts by the subjects may have motivated a more socially desirable response set. Several questions on the questionnaire relied on the subject's memory (i.e., the pattern of weight changes since leaving the program). These items may have requested information beyond the subject's discrimination, storage, or recall ability. Additionally, the subjects' responses may have conformed to what they perceived as the experimental

demand, thus not tapping the subjects' natural responses.

Experimental demand may have been a contributing factor to the overall response rate of this study. That is, if the study was interpreted to be one investigating relapse alone, successful maintainers may have chosen not to participate, skewing the sample population.

The overall response rate of the study was 16%, including those who declined participation, and 9% for those who actually chose to participate. For research purposes, it would be best to get a greater percentage of the sample population. A host of reasons might account for the low response rate: apathy, frustration and/or satisfaction with their experience, lack of reward for participation, the impersonal nature of mailed surveys, time lapsed since completing the program may have made the questionnaire to cumbersome to fill out since it relied on their memory, and they may no longer be invested in this issue. Additionally, one must consider the possibility that those who possess particular personality characteristics are more likely to respond to a mailed survey. As a group, the subjects in this study attained the highest mean on the Alienation scale. This particular scale reflects isolation and

withdrawal from others. This trait may be a motivating factor in responding to a mailed survey.

Although a significant difference was not found on the insecure attachment scale when comparing the means of the maintenance group and the relapse group, a significant difference was found on the insecure attachment scale when comparing the means of those who endorsed emotional eating and those who did not. This finding supported the theoretical assertion presented regarding the relationship of attachment to eating behavior. That is, early empathic failures on the part of the selfobject disrupt attachment and the self fails to internalize self-soothing structures. When experiencing intolerable affect, the self initiates some action to ameliorate the affect. In this case, that action is eating, a symbolic representation of the earliest object. Emotional eating behavior avoids the affect associated with abandonment. Though this study presented this theoretical framework, the presumed causal role of these variables remains untested because of the nature of this study.

Although it found significance when comparing the means of emotional eaters with non-emotional eaters, one must remember these data come from an exploratory study without the rigors of experimental research. It defined emotional eating by a limited number of questions selected from the Dutch Eating Behavior

Questionnaire (Van Strien et al., 1985). The reliability and validity of the portion used were not available. Additionally, reliance on retrospective self-report data, which may be unreliable or biased, as suggested earlier, weakened the findings of this study.

Finally, this study found a significance between elevations on the Egocentricity scale of the Bell Object Relations Inventory and those who chose to participate in group therapy following treatment. This finding, not predicted within the scope of the study, however provided an avenue for future research in regard to object relations in an obese population.

The generalizability of these findings is uncertain because the study focused on female subjects who participated in a Medifast weight loss program. In this regard, the population used was generally one of upper-middle-class insured patients. Additionally, the effects, both physiologically and psychologically, of experiencing this particular type of weight loss program may be quite different from those who lose weight by other means. Therefore, the generalizability of the findings in this study was limited.

6.1 Summary

Obesity is a prevalent health problem in the United States. The causes range from physical, psychological, hereditary, and environmental factors. Complex physical variables maintain the process of obesity. Obesity affects not only one's physical health but also one's psychological and sociocultural adjustment. These effects motivate thousands of obese and overweight people to pursue treatment. Treatment approaches are vast in number and range from radical surgery to psychological approaches, most typically behaviorally oriented programs. However, research suggests that despite the success of many programs to achieve weight loss, relapse is common. The process of relapse has negative physical and psychological effects, frequently further perpetuating the problem.

Relapse in weight loss has been a difficult phenomenon to assess due to the complexities of the issue. Yet, relapse, indeed, is an important area to study due to the frequency of its occurrence and because of its detrimental effects.

This study explored the issue of relapse in weight loss from a psychodynamic perspective. Psychodynamic theory rests on the premise that early development plays a primary role in the evolution of psychic structure that guides our psychological life. Psychodynamic theory posits that the early attachment

experience, through the mother-infant relationship, provides the basis for internalization of psychic structure. Self psychology suggests that disruptions in empathic attunement on the part of the selfobject interfere with appropriate internalization of psychic structure. A developmental arrest occurs, and the self is unable to manage intolerable affect appropriately, When experiencing intolerable affect, the self initiates some behavior to ameliorate it. In the case of the compulsive overeater, the action is the ingestion of food. In a sense, this recreates the most primary mother-infant bond, that of feeding and wards off the intolerable affect and abandonment.

These concepts find some support in the empirical literature. A number of studies found a link between affect and eating behavior. Additionally, some studies found object relations deficits in eating disordered populations.

This dissertation attempted to find a relationship between the quality of attachment and relapse as well as the quality of attachment and affect motivated eating behavior. It assessed attachment through the Bell Object Relations Inventory, an inventory used in other eating disorder studies.

The population used in this study was Caucasian females who participated in the Medifast weight loss

program. It hypothesized that.those who relapsed following weight loss would show more object relations deficits, particularly in regard to insecure attachment. In addition, those who reported emotional eating would show greater deficits on the insecure attachment scale compared to those who did not report emotional eating.

The results of the study did not show a significant difference in the quality of object relations in the relapse group as compared with the maintenance group. However, it found a significant difference when comparing emotional eaters to non-emotional eaters on the insecure attachment scale. This finding was consistent with the theoretical concepts presented that link affect and eating behavior. The conclusions drawn from the results of this study were limited by the complex nature of weight loss relapse.

Future research needs to address the reliability of the findings reported in this exploratory study. Future work is necessary to further the currently limited object relations research with an obese population, particularly in regard to relapse. The complex nature of relapse in weight management makes this a challenging endeavor, but nonetheless one that is sorely needed. It is the researcher's hope that research in this area will guide future therapeutic

interventions and provide more successful long-term treatment outcomes.

APPENDIX A: TABLES

Table 1 DEMOGRAPHICS

	N
Caucasian	39
Female	39

Table 2 LEVEL OF EDUCATION

	N
11th Grade	2
High School	11
Some College	16
Bachelor +	10

Table 3 MARITAL STATUS

STATUS	N
Single	10
Married	24
Divorced	3
Widowed	2
No response	0

Table 4 RELIGIOUS AFFILIATION

RELIGION	N
Catholic	30
Protestant	3
Other	4
No response	2

Table 5 ETHNIC BACKGROUND

ETHNICITY	N
Italian	9
Polish	7
Irish	5
German	5
Dutch	2
Other	8
No response	3

Table 6 ONSET OF OBESITY

AGE	N
Childhood	19
Adolescence	11
Adulthood	6
No Response	3

Table 7 BODY MASS INDEX: GRADE OF OBESITY

GRADE	N
Overweight	0
Obesity	5
Medically Significant Obesity	5
Super Obesity	13
Morbid Obesity	10
Super Morbid Obesity	5
Not able to Calculate	1

Table 8 GROUP STATISTICS

VARIABLE	MEAN	MEDIAN	STAND. DEV.
AGE	42		
Education	14	14	2.3
Weight	217	208	41
Start Weight	224	224	42.3
End Weight	182	180	35.3
Goal Weight	151.5	150	26.5
Total Lost	42.5	43	22.8
T Relapsed	40.9	40	26.5

Table 9 RESULTS OF BELL OBJECT RELATIONS INVENTORY

SUBSCALE	MEAN	MEDIAN	STAND. DEV.
Alienation	50.06	48.75	8.23
Insecure Attachment	45.37	48.75	11.73
Egocentricity	47.10	45.0	9.44
Social Incompetence	48.35	48.0	11.35
Reality Distortion	48.85	50.0	6.94
Uncertain Perception	44.45	42.0	9.69
Hallucinations/ Delusions	43.99	42.25	8.57

(T Score $\geq$ 60 indicates significant pathology)

Table 10

MEAN COMPARISONS ON THE BELL OBJECT RELATIONS INVENTORY: RELAPSE GROUP VS. MAINTENANCE GROUP

Bell Subscale	Relapse N=25 Mean	Maint. N=14 Mean	t-score	p-value
ALN	51.29	47.86	1.39	0.17
IA	47.8	41.05	1.92	0.063
EGC	46.76	47.70	-.30	0.76
SI	49.4	46.5	0.74	0.47
RD	49.95	46.89	1.44	0.16
UP	44.2	44.8	-.15	0.88
HD	44.54	43.00	0.53	0.60

*P<.05

Table 11

VARIOUS MEAN COMPARISONS ON THE INSECURE ATTACHMENT SUBSCALE OF THE BELL OBJECT RELATIONS INVENTORY

Variable	t-score	p-value
Relapse (N=25) vs. Maint. (N=14)	1.92	0.063
Emotional Eating (N=17) vs. Non-Emotional Eating (N=20)	-2.52	0.017*
Stress (N=11) vs. Non-Stress (N=26)	-2.18	0.037*

*p<.05

APPENDIX B: CONSENT FORM

Informed Consent Form

Dear former Medifast Client,

My name is Mary Jean Celec and I am a doctoral student at the Chicago School of Professional Psychology. I have a special interest in eating disorders. I am eager to learn more about weight management from individuals who have been through the Medifast program. I am writing to request your participation in my research study.

The purpose of this study is to investigate the factors that may influence the maintenance of weight losses following participation in the Medifast program. In order to do this, participants are asked to provide information about themselves by filling out the two questionnaires enclosed. This should take approximately 15 minutes. Your participation in this study is completely voluntary. Your choice to participate or not participate will in no way effect your relationship with the Weight Management Center at Resurrection Hospital. You are free to withdraw your consent to participate at any time with no adverse consequences.

Procedure: Participants were selected from inactive files at the Weight Management Center at Resurrection Hospital. Each participant is asked to sign this consent form and complete both sides of both questionnaires enclosed. The first questionnaire is to gather demographic data and information related to your maintenance of weight losses. The second questionnaire asks 90 self descriptive statements to which you respond "true" or "false" according to your "most recent experience". Please return this signed consent form and both completed questionnaires in the stamped

envelope provided. If you choose not to participate, please return the blank questionnaires to me.

Risks and Benefits: There are no anticipated hazards, risks, or discomforts involved in this study. If the participant perceives any discomfort or harm, the primary investigator, Mary Jean Celec, will be available by phone for consultation providing ample opportunity for the participant to raise questions which will be answered fully and honestly. Feel free to contact Mary Jean Celec at (313) 380 - 8292. If I cannot be reached call Linda Dean, Weight Management Center at Resurrection Hospital (312) 792 - 5022. By filling out these questionnaires it is an opportunity for you to contribute to the research involved in understanding the factors that influence maintenance of weight losses.

Confidentiality: Any and all information released by the participants will be kept strictly confidential. Please do not put your name on the questionnaires. The questionnaires are numbered to keep each set of data together. The results of the study will be used in a Doctoral Dissertation and may possibly be published in a professional journal, but any publication will only report data in terms of the collective group not in terms of individual responses.

Participation Consent: I have read the above information and understand the nature of my participation in the study and voluntarily agree to participate.

_____ _____

Participant (print then sign) date

_____ _____

Witness (print then sign) date

APPENDIX C:

GENERAL INFORMATION QUESTIONNAIRE

000064

General Information Questionnaire:

Race/Ethnicity:
- ☐ Caucasian/White
- ☐ African American/Black
- ☐ American Indian/Alaskan
- ☐ Latin/Hispanic
- ☐ Asian/Pacific Islander
- ☐ Bi-racial _____
- ☐ Other (specify)_____

Relationship Status:
- ☐ single
- ☐ engaged
- ☐ married
- ☐ widowed
- ☐ separated
- ☐ divorced
- ☐ cohabitating

Religion:
- ☐ Catholic
- ☐ Protestant
- ☐ Jewish
- ☐ Islamic
- ☐ Buddhist
- ☐ other_____

Ethnic Heritage: _____
(eg. Italian, Polish, Mexican)

Highest year of education completed:

	Grades:		College:	Grad. School
	☐1	☐7	☐1	☐1
	☐2	☐8	☐2	☐2
	☐3	☐9	☐3	☐3
	☐4	☐10	☐4	☐4
	☐5	☐11	☐5	☐5
	☐6	☐12	☐6	☐6

Height: _____
Current Weight: _____

Birth Weight: _____

Onset of Obesity:
- ☐ infancy
- ☐ childhood
- ☐ adolescence
- ☐ 20 - 35
- ☐ 36 - 50
- ☐ over 50

Family History:

	Never Obese	Mild Obese	Mod. Obese	Very Obese
Mother:	☐	☐	☐	☐
Father:	☐	☐	☐	☐
Sister (s):	☐	☐	☐	☐
Brother(s):	☐	☐	☐	☐
Spouse:	☐	☐	☐	☐

According to your First Time on Medifast please answer:

Date Began Medifast Program (Month/Year): _____
Date Ended Medifast Program (Month/Year): _____
Starting Weight: _____
Goal Weight: _____
Ending Weight: _____
Total Lost: _____

Continued weight loss after Medifast: _____ pounds
Weight gained after Medifast: _____ pounds

Estimate cycles of weight gain and loss (After Medifast):

1 cycle :	gained_____lbs	then	lost_____lbs
2 cycles:	gained_____lbs	then	lost_____lbs
3 cycles:	gained_____lbs	then	lost_____lbs
4 cycles:	gained_____lbs	then	lost_____lbs
5 cycles:	gained_____lbs	then	lost_____lbs
6 cycles:	gained_____lbs	then	lost_____lbs

Onset of Weight Gain After Medifast:

- ☐ Less than 3 mo
- ☐ Between 3 mo & 6mo
- ☐ Between 6 mo & 1 yr
- ☐ Between 1 yr & 2yrs
- ☐ Between 2 yrs & 3 yrs
- ☐ More than 3 yrs

After Gaining Weight Have You:

- ☐ restarted Medifast
- ☐ joined another program
- ☐ dieted on your own
- ☐ other_____

Prior to Medifast have you:

Y☐ N☐ Tried "At home" diets? Approximately how many times?_____

Y☐ N☐ Tried other Formal weight loss programs ? Approximately how many times?_____

Y☐ N☐ Had any medical problems that effected your weight?

If yes, briefly describe:_____

Currently do you:

Y☐ N☐ Severely restrict your food intake, use laxatives, or force yourself to vomit to control your weight?

Y☐ N☐ Suffer from any emotional or psychological problems?

If yes, briefly describe:_____

Since Completing the Medifast Program have you:

Y☐ N☐ Been pregnant?

Y☐ N☐ Experienced any stressful life events?

If yes, briefly describe the nature of stress:_____

Y☐ N☐ Taken any prescribed medication that might effect your weight ?

If yes, please list:_____

Y☐ N☐ Had any medical problems, that might effect your weight?

If yes, briefly describe:_____

Y☐ N☐ Joined a weight management support group?

In General, do you have a desire to eat when you are:

Y☐ N☐ bored or restless?

Y☐ N☐ anxious, worried, or tense?

Y☐ N☐ depressed or discouraged?

Y☐ N☐ feeling lonely?

Y☐ N☐ under stress?

Y☐ N☐ excited?

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