COMPARISON OF SELF-CONCEPT AND SELF-DISCLOSURE PATTERNS IN OBESE AND NONOBESE ADOLESCENTS

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We hereby recommend that the Thesis prepared under our supervision by Margaret Suzanne Doscher, B.S.N. entitled "Comparison of Self-Concept and Self-Disclosure Patterns in Obese and Nonobese Adolescents"

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CHAPTER I

INTRODUCTION

Obesity is a widespread problem receiving much attention in Western society. The adolescent portion of the United States population is not exempt from this significant problem; and as a rule, the obese state is not a passing phenomenon for the adolescent.

There are varying influences that may be at the basis for the overweight state. Environmental, genetic, metabolic, and psychological factors are among the possible contributing components. Even though a single theory to explain all obese states has not been found, it is generally accepted that obesity can lead to serious complications that affect an individual's capacity to adapt to life.

For the adolescent individual, the overweight state may greatly influence success or failure with coping during this phase of life. Physiological and psychosocial changes challenge all adolescents. Even though physical change is inevitable during adolescence, the obese adolescent is particularly sensitive about outward appearance. The obese adolescent often becomes the victim of cruel, intense ridicule and experiences blocks to many avenues for

developing satisfying relationships. The overweight adolescent may be viewed as lazy, sloppy, out of control, unattractive, and lacking ambition. Such labeling by significant others, especially peers, may foster feelings of self-blame, discontent, inferiority, and guilt.

Indeed, variations in physique have a significant influence on the adolescent. Adolescents tend to magnify differences, to worry about them, and possibly to develop distortions in the self-concept. This issue of self-concept is particularly important during adolescence as the individual modifies, refines, and crystallizes views of the self. The adolescent's self-concept affects his behavior, his peer relationships, his capacity to cope, and may have a lasting influence on his personality. Because of the overweight body, the adolescent's efforts to build a satisfactory self-concept may be inhibited.

The obese adolescent's personal adjustment may be further impaired by difficulty in self-expression, reluctance to share personal information, and hesitancy in permitting others to get close. Since the overweight adolescent may already feel ostracized and rejected, the risk of establishing close, confiding relationships may be too much of a threat to his well-being. Refraining from

self-disclosure may actually serve to reinforce some of the adolescent's self-derogatory feelings.

In summary, obesity is a highly complicated problem. Obesity in adolescents may interfere with healthy personality development. In the process of experiencing adolescence, the individual encounters varying interactions that influence the modification of the self-concept. Likewise, the presence or absence of a healthy, realistic self-concept may be associated with the adolescent's capability of sharing himself with others. Hence, dissatisfactions and struggles of the obese adolescent are likely to be much more than a large body size.

It does seem fitting then that research into the issue of obesity during adolescence with specific focus on the adolescent's self-concept and pattern of self-disclosure be done. The findings of a study such as this should furnish data to determine whether or not the obese adolescent does in fact have derogatory feelings about self and also copes with difficulty in discussing self with others. It is not safe to assume that a decrease in weight is the most significant issue for all obese adolescents. The findings of the study have implications for all nurses and other health professionals whether working in school health centers, hospitals, or community mental health facilities.

This study should enable nurses to be more effective in delineating a therapeutic approach to be used with the obese adolescent and to approach each adolescent in a highly individualized manner. A therapeutic relationship with an adult in the health field may be of vital significance in fostering the obese adolescent's capacity to get in touch with self, to gain comfort in sharing innermost problems and concerns, and to relinquish eventually the need to use the overweight body as a means of keeping distance from others. In addition, these research findings should furnish relevant data supporting the need for prevention of obesity prior to adolescence. While the relevancy of prevention of obesity is closely associated with decreasing the chance of the emergence of physical disease processes associated with obesity, it is also closely aligned with increasing the likelihood of healthy personality development. With this thought in mind, even nurses and other health workers involved in the education and training of prospective parents and parents with young children should profit from the findings of this study.

Statement of Problem

The problem of this study was to investigate and to compare the self-concept and the self-disclosure patterns of obese and nonobese adolescents.

Purposes

The following were purposes for doing the study:

1. To determine the self-concept and the pattern of self-disclosure of obese late adolescents.

2. To determine the self-concept and the pattern of self-disclosure of nonobese late adolescents.

3. To determine whether or not there is a relationship between the self-concept and the pattern of self-disclosure of obese late adolescents and the self-concept and the pattern of self-disclosure of nonobese late adolescents.

Background and Significance

Obesity is an increasingly common, complex health problem affecting many lives. "Approximately 60,000,000 Americans are overweight" (Linder 1974: 27), and about twenty million people are dieting at any one time (Nidetch 1970). In the United States school age population alone, "100,000 school children under 12 years of age and some 150,000 over 12 years of age are obese" (Lorber 1974: 68).

Although obesity is a common problem, it is not a simple one with a single cause.

Accompanying the persistent disorder is a complex contributing system. Genetic, metabolic, socioeconomic, cultural, environmental, and psychological elements are possible factors that lead to and maintain the obese state (Craft 1972; Penick and Stunkard 1970). With all the research relative to the etiology of obesity, no investigator has found a single factor relevant to all individuals.

Recent physiological research studying the etiology of obesity deals mainly with the adipose theory. This research yields evidence that the total fat cell content of adipose tissue may be determined early in life (Kenna 1974; Salons et al. 1968; Wilson et al. 1969). This discovery holds much promise for the treatment of individuals who become obese in childhood (Penick and Stunkard 1970).

Studies focusing on behavioral components influencing the development of obesity are placing greater emphasis on the relationship between social class and obesity and on the impact of environmental control. Silverstone, Gordon, and Stunkard (1969) found an inverse relationship between social class and obesity. Prevalence of obesity among the lower socioeconomic status group possibly speaks to a deficiency in nutritional knowledge

and to a diminished pressure among this group to conform to the attribute of slimness. Studies such as the forementioned definitely add credence to the impact of social factors on obesity. Nisbett's study (1968) of the eating behavior of obese and normal weight male university students points to the effect of situational determinants on the eating behavior of obese persons.

Various psychological variables have been studied in relation to the etiology of obesity. Hilde Bruch (1973), a noted psychologist in the field of obesity, believes that obesity is the result of some disturbance during the oral stage of development. The mother may be overprotective and oversolitious and substitute the giving of food for real affection (Bruch and Touraine 1940). With repeated frustration and tension during the feeding experience, complete emotional emergence from this developmental stage may not occur. In later years, the person may "see and feel food as love, warmth, comfort, security, reward, stimulation, sedation, sex, and many other things" (Rubin 1970: 46).

Rubin (1970) also believes that a pervasive problem of the obese person is the inability to express anger. There is considerable evidence to support Rubin's proclamation. In their close study of a dozen patients

hospitalized for prolonged weight reduction treatment, Wunderlich, Maltimore, and Sharp (1972) found that depression, anger, and hostility were common among their patients. Likewise, Hammar and Eddy (1966) believe that anger is prevalent among obese people. These authors, Hammar and Eddy, address themselves to the obese adolescent and say that the obese adolescent is frequently "angry about being deprived of satisfying relationships, angry about being denied support and the necessary opportunities for becoming independent" (1966: 84).

Indeed, the vast research pertaining to obesity verifies the complexity of the problem and points to many interrelated factors responsible for obesity. However, one must not lose sight of or underestimate the effects of the problem on the life patterns and the personality of the obese person. With respect to this concern, the obese adolescent seems to be particularly vulnerable to deleterious effects.

For all individuals, adolescence is a period of unusual change. Changes in growth, development, and behavior occur (Ackerman 1958). Adolescence is also a period that provides a "possibility for an experience of psychological growth" (Joint Commission on Mental Health of Children 1973: 202). For the overweight adolescent,

psychological growth may be thwarted in a number of ways. Peer ridicule or peer ostracism frequently persecutes the obese adolescent (Hammar and Eddy 1966; Saffer and Kelly 1974). With this type pressure and rejection, the obese individual is likely to retain familial dependency rather than to achieve the normally expected separation from family (Monello and Mayer 1963). While this predicament applies to all obese adolescents, it may be particularly traumatic for the "late" adolescent who by nature of his age alone is expected to break familial ties.

Closely associated with the adolescent's capabilities in achieving distance from his biological family is his keen concern with self. Questions like "Who am I?", "How good am I?", "What am I like?", and "How shall I judge myself?" frequently concern adolescents (Rosenberg 1965). Indeed, adolescence is a time of major decision and concern with self. Heightened abilities in the cognitive realm and exposure to new and varied experiences provide additional conditions for increased self-awareness. For the obese adolescent, his very difference from others, especially peers, may further compel self-examination. It is also possible that what is discovered upon self-examination may further incline the adolescent to perpetuate his obesity.

Self-concept is derived from past and present personal experiences, from judgments of others, and from identifications with key figures such as parents, siblings, and friends (Beck 1967). During adolescence, the individual faces major changes in the broadening, redefining, reexamining, and reintegrating of the self (Ackerman 1958; Joint Commission on Mental Health of Children 1973). Although the issue of self-concept has been studied by many investigators, "knowledge about self-concept development is still pretty much an unknown land in social psychology" (Simmons and Rosenberg 1973: 565). Adolescence provides a particularly interesting time of life to study the self-image because the individual experiences a gradual movement away from childhood dependencies, greater involvement with the extrafamilial world, and an increased awareness of and concern for the self (Rosenberg 1965).

In their study of forty obese adult subjects, Stunkard and Mendelson (1967) found that individuals who were obese during adolescence had a more disturbed self-image than those who developed obesity in adulthood. It is likely that punitive social pressures coupled with the adolescent's sensitivity toward such pressures do have tremendous affect on the personality of the individual.

More attention should be paid to the issue of self-image or self-concept in the obese adolescent population (Stanley et al. 1973). More detailed and accurate research is needed to know what kinds of experiences are needed for the development of component and effective behavior and feelings of inner comfort and acceptance (Coopersmith 1968).

It does seem possible that an individual who is not comfortable with self may also have difficulty with sharing self with others. For the adolescent, the issue of sharing personal thoughts and feelings is a vital one. Jersild (1965) believes that during adolescence, perhaps more than at any time in his life, the individual needs to share his strong and often confusing emotions. Having one or more persons in whom he can confide may make a great difference in the life of the adolescent (Missen et al. 1974). The fact that the capacity and willingness to reveal self to others is significant in human living is agreed upon by many authorities (Jourard 1968; Horney 1950; Reisman 1950). In fact, Jourard (1968) maintains that self-disclosure is both an indication of mental health and a means of achieving a healthier personality.

Some studies relative to the pattern of self-disclosure among adolescents have been done (Truax and

Wittmer 1971; Wiebe and Williams 1972). However, research is not available that studies the pattern of self-disclosure and the feelings about self among the obese adolescent population. It does seem valuable, then, that data be obtained in order to determine and clarify relevant concerns among this population. Such information should provide significant findings that may enhance the approach to be used with individual adolescents dealing with the overweight state.

Hypotheses

The following hypotheses were tested in this study:

1. There is no significant difference between the self-concept of obese adolescents and nonobese adolescents as measured by the Tennessee Self Concept Scale.

2. There is no significant difference between the pattern of self-disclosure of obese adolescents and nonobese adolescents as measured by the Self Disclosure Questionnaire developed by Sidney Jourard, Ph.D.

3. There is no relationship between the self-concept and the pattern of self-disclosure of obese adolescents.

4. There is no relationship between the self-concept and the pattern of self-disclosure of nonobese adolescents.

Definition of Terms

The following terms were defined for use in the study:

1. Adolescence--the period of development that begins with the physiological and psychosocial adjustments to puberty and ends with the successful emancipation from family and the capacity to engage in interdependence and intimacy.

2. Obesity--that bodily state in which there is an excessive accumulation of fat in both the relative and absolute sense (Craft 1972: 677).

3. Self-concept--attitudes, feelings, thoughts, and beliefs about oneself.

4. Self-disclosure--the process of accurately portraying the self to others (Jourard 1971).

Limitations

The study was structured in regards to the following limitations:

1. A small sample size will limit generalization of findings.

2. Findings will be specific only to the sample population studied.

Delimitations

The study was structured in regards to the following delimitations:

1. Subjects participating will be between the ages of seventeen and nineteen inclusive.

2. Based on the Metropolitan Life Insurance Company's guide for desirable weight, obese subjects will be at least 15 percent over the maximum normal weight for sex, age, height, and body frame.

3. Based on the Metropolitan Life Insurance Company's guide for desirable weight, nonobese subjects will be within or below the normal weight ranges for sex, age, height, and body frame.

Assumptions

For the purpose of this study, it was assumed that:

1. Obesity is a serious health problem resulting from multiple causes. Its presence increases the incidence of medical, social, and psychological problems.

2. Adolescence constitutes a crucial time in the life cycle of any individual.

Summary

Although the complexities of the problem of obesity are discussed frequently in the literature, there is a scarcity of information available that focuses on the personality patterns of obese adolescents. For any adolescent, it seems that successful emergence from this crucial developmental stage is closely akin to the individual's innermost feelings about self and the capacity to share self with others. This thesis is designed to furnish meaningful information and to enhance the understanding about the personality of the obese adolescent. The succeeding chapter is arranged to supply a review of the literature relative to the problem of obesity, the situation of adolescence, the issue of self-concept, and the issue of self-disclosure. Chapter III is designed to explain the procedure for the collection and treatment of data. The analysis of data is discussed in Chapter IV. The final chapter addresses itself to the summary, conclusions, implications, and recommendations of this study.

CHAPTER II

REVIEW OF LITERATURE

Introduction

A review of the literature was performed in order to investigate the following areas: the problem of obesity, including the treatment of the problem; theories of obesity; the adolescent experience; the late adolescent experience; the obese adolescent, along with therapeutic approaches utilized in managing the obese adolescent; self-concept; the self-concept of the adolescent; and self-disclosure. Although considerable information concerning obesity, adolescence, self-concept, and self-disclosure is available, no single study was found that explored all these variables.

The Problem of Obesity

By any standards, obesity is a major health issue in the United States. Poverty and hunger are widespread, but obesity is the first among nutritional problems in our country (Braunstein 1971). "It has been estimated that approximately 30% of our adult population is more than 20% overweight" (Braunstein 1971: 39). While these figures apply only to the adult age group, it is nonetheless

important to emphasize that this impressive problem affects all sectors of our population.

A definition of obesity is desirable, but a generally accepted definition does not exist. Many authorities agree that an individual is obese when the weight is "at least 10% in excess of the normal or desirable weight, although some take 15% as the figure" (Craddock 1969: 2). Craft defines obesity "as that bodily state in which there is an excessive accumulation of fat in both the relative and absolute sense" (Craft 1972: 677). On the other hand, Bruch (1957) claims that obesity is essentially a somatic manifestation of a personality disturbance. In support of a psychological definition of obesity, Rubin (1970) and Simon (1963) define obesity as a depressive equivalent.

However obesity may be defined, health professionals are constantly faced with individuals who consider themselves obese and are seeking a successful management regime to combat the problem. Braunstein proclaims that "obesity is the most common nutritional disorder confronting the physician in this country today"(1971: 39). Garrell's survey of sixteen adolescent clinics in hospitals in the United States and Canada showed that the majority of adolescents who were seen in the clinics were obese and

that in ten of these clinics the diagnosis of obesity was the most frequently listed (Garrell 1965; Carrera 1967). Indeed, the prevalence of the problem is no mystery to society at large and health professionals in particular.

Being obese in a society that places emphasis on physical attractiveness and physical fitness is not necessarily an easy or a happy experience. The obese person frequently becomes the subject of jokes, ridicule, and ostracism. Overeating may be used as compensation for emotional and social dilemmas. Self-conscious, inadequate, and inferior feelings frequently mount (Kalish 1972; Maddox et al. 1966). Furthermore, obesity greatly influences vulnerability to many physical diseases. Diabetes, atherosclerosis, cholilithiasis, and hypertension are a few of the disease processes that are clinically associated with obesity (Braunstein 1971). "Perhaps the obesity is not the cause of the trouble, but it may be a coexistent feature" (Solomon 1972: 3). The aggrevating role of obesity is a documented fact. Insurance companies widely publicize such data, and the determination of insurance rates is definitely influenced by the existence of obesity.

Despite the magnitude of the problem of obesity in relation to economic, physical, psychological, and social effects, there is still great confusion over the management of the problem. The perennial list of books, "fad" diets, diet foods, and other dieting aids continue to surge. These aids to weight management are rarely evaluated and their real efficacy is never determined. One recently published guide does attempt to rate the forementioned aids (Berland 1974); but unfortunately, the ratings are based on clinical judgments and not on testing under controlled circumstances. In recent years, obesity also has fostered the development of self-help groups. This group approach to weight loss has gained much popularity and is a widely acceptable route to the goal of weight reduction. The effects of weight loss via the self-help groups are variable; but in 1970 only six years after the origination of Weight Watchers, there were "over 5,000 100-pound achievers, and about 25 200-pound achievers" (Nidetch 1970: 209).

The literature describing the medical management of obesity is dismal and confusing. In their study of obesity in an out-patient clinic, Maddox, Anderson, and Boddonoff reported medical management to be "difficult and

rarely successful" (1966: 394). This fact of failure is widely supported in the literature (Craddock 1969; Mayer 1968).

In an effort to combat the problem, other methods of treatment are now available. For selective cases of individuals coping with obesity, surgical treatment appears to be effective (Weismann 1973). However, post surgical complications including morbidity remain a serious limitation. In addition to the relatively new technique of achieving weight reduction via surgery, other disciplines have added to the methods for treating the obese. Experimental psychology has great claims on positive outcomes for utilizing behavioral techniques in the treatment of obesity (Dinoff et al. 1972; Wollersheim 1970). While behavioral therapy has greatly expanded the knowledge of the management of obesity, some skeptics feel that this approach may alleviate the symptom but fails to give due recognition to significant unconscious mechanisms which are beneath the large body size (Bruch 1973; Bychowski 1950).

Bruch (1973), a noted researcher in the field of obesity, claims that the management of the obese person must be aimed at understanding and treating the emotional problems. A reducing regime should be used as the last

treatment modality (Bruch 1973). This need to focus on the psychological problems that play a role in the development of obesity or are created by the obese state is upheld by many investigators (Braunstein 1971; Wunderlich et al. 1972). Authorities adopting this stance believe that the traditional medical view of the obese individual as one who is simply unable to control food intake is extremely unjust. One group of authors who address nurses who are involved with treating and managing obese people state that "the major emphasis . . . must be on psychological rather than physical grounds" (Wunderlich et al. 1972: 15).

Indeed, the complexities of the problem of obesity are multitudinous. Just as a precise definition of the term obesity does not exist, there is also extreme diversity relative to the management of the problem. The one area of unanimous agreement appears to be in regard to the potential hazards associated with the condition.

Theories of Obesity

Even with the vast amount of work done in the field of obesity, there is still no general agreement relative to the dynamics and etiology of the problem. The diversity among investigators is tremendous, and the field is still relatively muddled (Kiell 1973). While the fact that

excessive adipose tissue stems from a positive caloric or energy balance present at some time in the individual's life is generally accepted (Braunstein 1971; Lorber 1974; Young 1964), mechanisms causing this imbalance, associated with its perpetuation, or underlying it are still obscure. Several investigators view obesity as a symptom and stress that the cause or causes must be searched for and removed if the condition is to be eradicated, controlled, or prevented (Braunstein 1971; Conrad 1954; Young 1964).

Much has been written about the multiple etiologies of obesity. Mayer (1960, 1968), who has contributed much to the elucidation of the possible causes, believes that genetic factors are highly significant in the etiology. From the study of twins and of sex ratios, data have been produced lending credence to the direct relationship between genetic factors and body weight (Mayer 1960). While this issue has been documented and statistics also show "that if one parent is obese 40%-50% of children can be expected to be and the per cent increases to 80% if both parents are obese" (Kenna 1974), one cannot deny the influence of environmental factors on the genetic mechanism (Mayer 1960, 1968). Bruch's classic study of 140 obese children and their parents likewise suggests that environmental factors and innate mechanisms within

the individual combine to produce the obese situation (Bruch and Touraine 1940). Newer research findings of Penick and Stunkard (1970) provide additional evidence that obesity is a condition of multiple etiology.

When considering the impact of genetics on obesity, one is inclined to examine recent information relative to the physiology of adipose tissue. Analysis of human adipose tissue samples taken from obese subjects has shown that obese individuals have more fat cells than normal weight individuals or that the number of cells may or may not be the same, but the size of the cells is greater among obese individuals (Kenna 1974). The number of fat cells present in the body does not change once the normal growth process stops, only the size of the fat cells can be reversed during adult life (Kenna 1974; Penick and Stunkard 1970). This fat cell theory has grave implications for the prevention of obesity during infancy and before the human growth spurt ceases (Penick and Stunkard 1970). The fact that "children who are over-weight by six months of age tend to be still overweight when they are five years old" (Kenna 1974: 312), and that "at least four-fifths of fat school children will be even fatter adults" (Lorber 1974: 70) lends impact to the interesting information about the physiology of adipose

tissue. More importantly, these findings lend significant support for the early prevention of obesity and for making available information regarding the hazards of overfeeding during early life.

Indeed, the role of physiology in the development of obesity is quite complex. An impressive study performed by Moore, Stunkard, and Srole (1962) suggests that awaiting further understanding of the physiologic determinants of obesity may not be necessary and in fact, could deter a rather broad scale assault on the problem in certain population sectors. Using data from 1,660 adults in New York City, these investigators studied the relationship between obesity and mental health. Findings showed a striking relationship between obesity and socioeconomic status. It was shown that "obesity is seven times more frequent in lower-class than in upper-class women" (1962: 965). Although studies examining weight status as a social phenomenon are scarce in the literature, Burnight and Marden (1967) address themselves to the findings of a significant longitudinal study that explored the social correlates of weight. Likewise, these findings suggest an inverse relationship between social class and obesity. While the findings of both of these studies are impressive, it is important to emphasize that the results

do not indicate a cause and effect relationship between obesity and socioeconomic status but simply a clear-cut connection between the two variables.

Many investigators engaged in the study of obesity address themselves to the psychological factors associated with obesity. Bruch (1940, 1957, 1973), Hamburger (1951), Kornhaber (1970), Rubin (1970), and Stunkard (1962) all attest to the fact that psychological factors play a tremendous role in the problem of obesity. While this fact is generally accepted, there still remains the puzzle as to whether or not the emotional aspects are the causes of the problem or the result of the problem.

Indeed, many obese persons do not appear to be the victims of deep psychological turmoil. In contrast, the obese individual is frequently jolly, happy, and smiling, and comes across as being quite satisfied with self and with life in general. However, this presenting picture is not always valid. This facade may be used as a cover-up for feelings of self-condemnation, shame, guilt, anger, failure, and frustration (Jordan 1973). Arthur Kornhaber maintains that the obese individual

> must perform an interaction with his environment that is superficial and non-rewarding. To maintain this tenuous equilibrium, he emotionally disinvests himself from "outside of himself" i.e. the smiling unperturbable fat man (who is

> also depersonalized and numb . . . but jolly) (1970: 582).

Hilde Bruch (1940, 1957, 1973), along with other investigators, places heavy emphasis on the early feeding experiences of the infant. To fully appreciate Bruch's thesis, one must keep in mind that for the infant, feelings of love, security, and trust are closely associated with the feeding experience. Erikson (1959) describes the mother-child feeding relationship as one of "true relatedness." It cannot be denied that future physical and psychological growth and development are deeply akin to the earliest interactions between the individual and his environment.

Relative to the early life of the obese individual, Bruch and Touraine's study (1940) produced interesting and significant findings. The attitude of parents, especially the mother, toward the child was one of unusual protectiveness. Food was used to fulfill practically every communicated need of the child, and it was used as a reward for "good" behavior. In addition, the child was fed even when he was not hungry. This seeming abundance of devotion and affection toward the child was actually a compensation for underlying feelings of hostility and rejection toward the child. Hence, the relationship that emerged might well

be described as a symbiotic one between an ambivalent maternal figure and a child who learns to resort to eating and to using food in order to avoid the expression of feelings that might cause the mother's underlying hostility to emerge (Bruch 1957). If one accepts Bruch's views, it does seem possible, then, that the individual grows up with an inability to discriminate between feelings of hunger and other basic needs. Likewise, the lack of trust that develops within the child as a result of the overabundant use of food to satisfy needs may lead to difficulty with this issue in later life. To further compound matters, the individual who experiences this type early life is likely to repress real feelings and become emotionally dependent on others to anticipate and meet his needs (Rubin 1970).

Samuel Dunkell (1965), who addresses himself to the similarities between the dynamics of obesity and acting-out behavior, confirms Bruch's beliefs about the obese individual being an oral character who has an ambivalent mother. Dunkell (1965) goes further with this idea by elaborating on the fact that as a means of inhibiting the expression of her own hostility, the obese child's mother "tries to shield the child from situations of danger and aggression" (1965: 136). This is achieved by discouraging

"muscular activity and exploratory behavior" (Dunkell 1965: 136). As a result, the obese individual develops into a passive and a compliant individual who grows up without permission to own and to express anger. "Thus hostility, although repressed, may be manifested in over-eating, or conversely, overeating may be an expression of some form of hostility" (Conrad 1954: 218).

The fact that the obese individual is apt to have much difficulty with the expression of anger is an accepted fact by many authorities (Braunstein 1971; Conrad 1954; Dunkell 1965; Hammar and Eddy 1966; Rubin 1970; Simon 1963; Wunderlich et al. 1972). Anger, an underlying dynamic of depression, may be expressed outwardly or turned inwardly. For the obese person, anger is usually turned inward and is frequently covered up by compulsive eating (Rubin 1970). This compulsive eating may very well be a defense against an underlying depression (Rubin 1970; Hamburger 1951). Braunstein believes that the obese person represses anger or hostility "because of his great fear of retaliation and disapproval" (1971: 218). Acceptance of this premise has serious implications for the therapeutic management of the obese individual. If indeed the individual eats to ward off emergence of a depression, it is possible that loss of weight may in fact cause depressive

symptomatology to surface. One clinical research study of a dozen patients hospitalized for prolonged weight reduction adds credence to the fact that the expression of depressive behavior does positively correlate with loss of weight (Wunderlich et al. 1972).

Indeed, the theories concerning the dynamics and etiology of obesity are numerous. At this time, it appears that obesity is a condition of multiple etiology and that the whole person must be considered when attempting to formulate a therapeutic regime. Examination of the research relative to factors causing, resulting from, or complicating the disorder inclines one to agree with the fact that "routinization of the treatment of obesity has been the greatest single cause of failure in treatment" (Halpern 1964: 1336). Uncovering conflicts alone does not necessarily prevent a person from overeating (Berblinger 1969). Likewise, a diet regime from the onset of therapy may be an unwise choice (Bruch 1969). Researchers continue to attempt to unravel the causes of the problem. While a vast quantity of research in the area is available, nursing research is sparce. It seems imperative that all health professionals join forces in an effort to search for the causes and thus have a more solid theoretical framework from which to select treatment modalities.

The Adolescent Experience

Adolescence is a unique developmental stage along life's continuum. It is an opportunity for psychological and social growth which may or may not occur after puberty (Joint Commission on Mental Health of Children 1973). Adolescence refers to psychological adjustments and developments which are related to the biological or physiological phenomena of puberty (Blos 1962). While there is a definite relationship between the situations of adolescence and pubescence, it is not valid to equate the two.

Adolescence is an intense period of self-definition. It is the process through which the self is defined through experience and clarification of experience (Duran 1972). It is also the process through which the individual learns to cope with the complexities of society and to adapt to the stresses of life (Miller 1974). It entails an integration of emerging abilities and potentials into actual living patterns (Duran 1972). With just these few thoughts in mind, one is inclined to attest that this period of life may put much pressure on the individual who is caught up in the whirlwind of its demands.

To view adolescence as a fixed number of years from age twelve to age eighteen (Holmes 1964) or from the

years eleven or twelve to seventeen or eighteen (Gardner 1957) is really not reliable. Every individual has a unique pattern of growth, development, and maturation. In addition, the individual's life history and the culture in which the adolescent lives have much to do with the manner in which adolescence is experienced. Such varying circumstances do not provide sufficient support for a chronological definition for the situation of adolescence (Blos 1962).

Adolescence may also be viewed as a social phenomenon. Thus viewed, "adolescence is the period in an individual's life when society ceases to regard him as a child but does not yet accord him full adult status" (Rogers 1972: 12). This social emphasis on adolescence emerged in the Western world during the twentieth century. Anti-child labor laws and compulsory primary education have developed and have influenced the delineation of a distinct period of adolescence. America has created an opportunity for youth to experience a protected environment, prolonged education, freedom from adult responsibilities, and social sanction for some experimentation. As a consequence, the period of adolescence has been lengthened at least a half dozen years (Keniston 1970). Although this culturally lengthened adolescent period does seem to afford the youth

of today a greater opportunity to fully experience adolescence, it really does not guarantee an optimal experience of this relevant developmental stage. Many young Americans are still forced into an early, superficial adult mold (Joint Commission on Mental Health of Children 1973).

In order to bring clarity to the description and discussion of adolescence, some authors divided adolescence into subperiods (Josselyn 1971; Lidz 1968; Miller 1974). A more vivid appreciation and understanding of the typical intensities of this period can be gained by examining the developmental period in this manner.

The first phase of adolescence is viewed as early adolescence (Lidz 1968; Miller 1974). The most obvious sign of transition from childhood to this period is the physical maturation accompanying puberty. Changes in physique coincide roughly with the emergence of new intellectual and cognitive abilities (Inhelder and Piaget 1958). The individual is also besieged by new emotional impulses and drives that create new and strange feelings and longings.

The onset of adolescence does not provide any remarkable shift from the monosexual peer groupings of latency. However, to some extent, the individual is very

much absorbed narcissistically with his own thoughts and feelings (Lidz 1968). Close attachment to a friend of the same sex assists the individual with examination of self and also supports the adolescent as he begins striving for freedom and independence from parents (Miller 1974). Blos says that this "decathexis of the familiar love objects" (1962: 77), the parents, is shifted to a friend whom the individual idealizes. This gradual movement away from childhood dependency constitutes the chief interpersonal tension during this period (Joint Commission on Mental Health of Children 1973).

As the early adolescent begins detachment from parents, this withdrawal and rebellion against parents is impelled by the reawakening of oedipal attachments (Lidz 1968; Jersild 1965; Miller 1974). Once again, the work of the oedipal period must be carried out; but at this time, "the sexual feelings will not be repressed so much as redirected away from the parent" (Lidz 1968: 320). As a way of handling this, the young adolescent begins to find fault with the parents and becomes critical of the parents. The varying ways he elects to cope with this issue are in effect helping him to abandon his infantile superego that in large part had been formed by the introjection of parental values and dictates. Although developmentally

this reflects advancement, the fact that the individual is turning away from identifications that in the past have provided him much strength and stability cannot be denied (Josselyn 1971; Lidz 1968). If the break with parents is too precipitous, this could undermine the young person, provoke intense guilt, and result in a severe loss of self-esteem (Lidz 1968).

In the middle stage of adolescence, the superego transformation and the oedipal conflict resolution continue (Jersild 1965; Lidz 1968). Blos (1962) refers to this stage as "adolescence proper." In contrast to other authorities (Jersild 1965; Lidz 1968), Blos (1962) believes that issues surrounding this oedipal revival and superego modification do not begin in early adolescence but develop during the middle years. Since heterosexual interests usually do not peak until middle adolescence, Blos' premise may very well be valid. At any rate, exactness in chronological age is not really the issue; but rather, the understanding of the concept is paramount.

During middle adolescence, to a greater degree than in the earlier subperiod, the youth continues his march toward gaining independence from parental supervision. This movement continues to be no easy feat for the adolescent or for the parents. Relative to the parental

position during this withdrawal, Anna Freud (1958) believes that there are few other events in life which are more difficult to cope with than an adolescent offspring during the attempt to achieve emancipation. The adolescent himself faces many struggles as he attempts to convince himself that he will ultimately achieve liberation and develop a sense of real self. He is frequently "beset by ambivalence, both wanting his parents and wanting to be rid of them" (Lidz 1968: 327). This ambivalence may be well camouflaged by calm and composed outward behavior; but nonetheless, "ambivalence about inner independence and outer freedom" is normally present (Joint Commission on Mental Health of Children 1973: 219).

In contrast to the early adolescent's close attachment to a friend of the same sex, the middle adolescent gradually turns to heterosexuality. This advancement to the heterosexual position marks progress in emotional development. For the first time, both affectional and sexual strivings are consciously focused upon an individual of the opposite sex who is outside the family (Lidz 1968). Blos says that "heterosexual object love brings an end to the bisexual position of previous phases. It signals the advance of the libido to new objects" (1962: 101).

To many authorities in the field of adolescence, one of the major themes of the whole adolescent period is the search for and the achivement of self-identification (Lidz 1968; Jersild 1965; Josselyn 1971; Miller 1974; Erikson 1959). Miller (1974) maintains that during midadolescence a firm sense of self-identity is developed. On the other hand, Lidz (1968) reserves the accomplishment of this task for late adolescence. At any rate, all adolescents grope with the salient issue of self-identification.

Each adolescent comes to the realization that he must formulate his own personality, select the principles on which to base his life, and become an individual who is part of society but who nevertheless is unique. The influences that originate within the self as the physical body changes, mental capabilities increase, and new feelings and drives are experienced are often of more significance than influences directed toward the adolescent by society, parents, and peers (Daniel 1970). Nevertheless, the effect of experiences outside the self must not be discounted. Accomplishment of this momentous identity task is far from easy for most adolescents. It is not rare for stress and turmoil to be intermixed with happiness and satisfaction during this pursuit for a real sense of self.

The Late Adolescent Experience

As the individual reaches late adolescence, there is a shift from preoccupation with issues of achieving emancipation and autonomy from the family to concerns relative to "questions about the future, the integration of self, and development of a sense of social role and personal purpose" (Joint Commission on Mental Health of Children 1973: 220). With sufficient liberation from parental and family ties and reasonable comfort with sexual expression, the late adolescent must reflect on a more definitive identity as a person so that ultimately he will reach intimate interdependence with another person.

Relative to this crystallization or formation of a definitive identity, Erikson (1959) describes the concept of ego identity as being the phase specific achievement of late adolescence. The development of one's own sense of identity as a person is contingent upon constant reorganization of the self during prior psychosexual developmental phases. If this process is followed, then, during adolescence the individual becomes able to experience self as being separate from others. Ego identification, or a strong sense of self, is concerned not only with "inner organization but also with how that organization permits the individual to move properly into social roles permitted

an adult and expected of him in society" (Lidz 1968: 344). In the words of Erikson, a sense of ego identity leads to "a sense of knowing where one is going and an inner assuredness of anticipated recognition from those who count" (1959: 118-9). The danger of this developmental period is self-diffusion (Erikson 1959).

An inherent part of identity formation is the capacity for intimacy, including intimacy with the opposite sex (Lidz 1968; Joint Commission on Mental Health of Children 1973). Part of the adolescent's capabilities with answering such questions as "Who am I?", and "What is my role in life?" are definitely related to the relationships that he has with others. In this respect, identity precedes intimacy; but especially for most late adolescent girls, and for many boys as well, identity development is closely bound up with concerns over sexual capacities, with the ability to be close and gain closeness with the opposite sex, and with a growing sense of adequacy, self-assurance, and comfort in one's sex role (Lidz 1968; Joint Commission on Mental Health of Children 1973). In this sense, readiness for intimacy and the actual achievement of intimacy with others closely parallels the development of a sense of personal identity.

Part of acquiring a more definitive integration of the self involves the late adolescent in deciding on and preparing for a vocation in life. For some adolescents the options are many; but for others, personal, social, and cultural conditions may block possibilities. If hurdles are experienced, personality growth is definitely affected. The significance of occupational or educational choice is tremendous. The choice leads to either further consolidation of identity or a foreclosing of identity (Mussen et al. 1974).

From the viewpoint of personality structure, by the close of adolescence the individual will have achieved a reasonable balance between the ego, id, and superego. The ego will control the id's instinctual drives while still having ready access to the id's energy and creative potential. The superego will facilitate adaptation to social reality without excessive blocking of instinctual needs (Committee on Adolescence, Group for the Advancement of Psychiatry 1968). Adaptive failure relative to the performance of the ego is referred to as "identity crisis," according to Erikson (1959).

Indeed, the adolescent in our society faces many demands related to his stage of development. Clear patterns or guidelines for the adolescent to follow as he moves

onward to adulthood are not available. Nevertheless, it is the responsibility of professionals who have contact with the adolescent age group to be aware of and to understand the dynamics underlying the potential concerns and problems of the youth in our society. With an appreciation for and understanding of the phase specific issues, hopefully the transition from childhood dependency to adulthood interdependency and responsibility might be made easier for the youth in our society.

The Obese Adolescent

The fact that adolescents are keenly interested in and concerned about outward appearance is agreed upon by many authorities (Dwyer and Mayer 1968; Hammar and Eddy 1966; Bruch 1969). "Those who deviate significantly from their peers . . . show a great deal of concern" (Hammar and Eddy 1966: 65). The overt deviance is frequently accompanied by feelings of being different from others. Ackerman (1958) and Schonfeld (1969) believe that an inadequate adjustment to feelings of being different frequently leads to behavioral aberrations in the second decade of life. For the obese adolescent, deviance in weight from that of his peers may cause much discontent and unhappiness.

Of major concern to any adolescent is the attainment of peer acceptance and peer approval. Since "adolescent peer groups are very sensitive to similarities and differences" (Dempsey 1972: 613), the obese adolescent may experience overt exclusion from the peer group. If this be the case, the youngster is deprived of experiencing the sense of belonging and feelings of strength and power that a peer group frequently provides (Committee on Adolescence, Group for the Advancement of Psychiatry 1968). The consequences of this type experience may be quite painful and traumatic for the adolescent. Much interpersonal and intrapersonal pain may result.

Experiencing peer exclusion during adolescence, an age when heterosexual interests are vastly important, has tremendous influence on any individual. In their study of the "Personality Interest Patterns in Obese Adolescent Girls," Werkman and Greenberg found that obese girls have considerable "social anxiety and behavioral immaturity, as well as significant depressive and hypochondriacal concerns" (1967: 79). Research done by Monello and Mayer (1963) concur with the fact that being obese during adolescence frequently leads to social isolation. The personality characteristics of the obese adolescents included in their study, Monello and Mayer

(1963), are strikingly similar to the traits of ethnic and racial minorities who are the victims of intense predjudice. Since adolescence is the precursor of the normally expected close, intimate relationships that are engaged in during adulthood, the significance of faulty and deficient involvements during adolescence cannot be overemphasized. The effects of such involvement are likely to be felt throughout the life time of the individual.

As a rule, the peer group plays a significant role in enabling the adolescent to loosen ties with parents and to achieve the independence that he desires (Dempsey 1972; Mussen et al. 1974). If the obese adolescent does experience rejection from his peers, this rejection places the youngster in a precarious situation. Retainment of parental dependency and abnormal concern with family have been noted among some obese adolescents (Monello and Mayer 1963). "They are fearful of separation from their parents and are fearful of growing up" (Hammar and Eddy 1966: 73).

Relative to this issue of dependency among the obese adolescent population, several investigators note particular familial characteristics (Atkinson and Ringuette 1967; Bruch 1957; Hammar and Eddy 1966). Hilde Bruch (1957) believes that dependency among obese adolescents is a result of early conditioning to be dependent. A

dramatic illustration of the effects of early experience is reported by Bruch and Touraine (1940). These authors write of parents of post-pubescent obese individuals bathing them, reminding them to urinate, and actually checking bowel movements after elimination. Although this may seem to be somewhat farfetched, it nontheless emphasizes the lasting effects of early childhood experiences. Hammar and Eddy (1966) speak of the overprotective and over-solitious parents, especially mothers. This type parental behavior is an attempt to shield the adolescent from unpopularity and discontent. Although parents of obese youth may describe their efforts as actually fostering independence, they are frequently "not aware that what they really want is for their teenager to remain a dependent child" (Hammar and Eddy 1966: 77). In regards to the type of familial conditions that seem to encourage the adolescent's dependency, some authors attest to the fact that the child's placement in the family has a relationship to this issue. Being an only child or the youngest child in the family favors overprotection and domination by parents (Atkinson and Ringuette 1967; Bruch 1957).

Another familial characteristic that receives attention in the literature is the effect of the presence and prevalence of familial obesity on the obese adolescent.

In families where obesity is present, the obese adolescent is generally more accepted (Atkinson and Ringuette 1967; Bruch 1957). Monello and Mayer agree with this fact but also believe that in light of the emancipation issues in adolescence, "it is reasonable to suppose that the obese adolescent does not find the family a wholly suitable source of acceptance" (1963: 37).

Indeed, opinions among investigators who have studied obesity in adolescence do vary. It is important to keep in mind that regardless of familial background, the here and now problems and concerns for the obese adolescent are crucially important. For some obese adolescents the large body size may serve as a scapegoat for other problems. For others, the excess fat may be the only block to successful adjustments; and still for others, the obese state may not inhibit successful developmental adjustment and progress.

Since obesity "affects 10 to 20 per cent of the adolescent population, it becomes the concern of all people who work in the health field" (Hammar and Eddy 1966: 72). Therapeutic modalities cannot be generalized for the whole population. Each obese adolescent must be approached as an individual with unique needs and concerns. Although some authors believe that adolescence is a

period particularly favorable for dieting (Dwyer et al. 1973), dieting alone is not the sole answer. If used alone, it can bring out feelings that have been well camouflaged (Hammar and Eddy 1966). Some obese adolescents find comfort in eating, and obesity frequently is the one thing over which the adolescent has control (Hammar and Eddy 1966; Lorber 1974).

There does seem to be much support in the literature for a thorough history taking prior to implementing a therapeutic approach to be used with the obese adolescent (Dwyer et al. 1967, 1970; Hammar and Eddy 1966). The total individual must be considered, and the first focus often is not the achievement of a slimmer body. The facts that during adolescence the individual is in the process of reexamining and redefining the self (Josselyn 1971; Lidz 1968) and that obese individuals often lack a strong sense of self (Bruch 1957) are of salient importance when assessing the needs of the obese adolescent.

A comprehensive approach to the problem may very well be the best approach. Saffer and Kelly (1974) report favorable changes in weight status and total personality among obese adolescents experiencing a therapeutic regime consisting of nutritional education, physical exercise, and

group psychotherapy. Plans for the future include the addition of a parent's group (Saffer and Kelly 1974). This addition of parents seems particularly valuable in view of the forementioned discussion regarding the parents and family of obese adolescents. In addition, inclusion of parents in the therapy of the obese adolescent seems significant because 69 to 80 percent of obese adolescents have one or both parents who are obese (Carrera 1967; Hammar and Eddy 19669.

Regardless of the treatment modality selected, Hammar and Eddy believe that:

> the most valuable assistance the nurse can give the obese teen ager is to help him find areas . . . in which he can achieve some measure of success, satisfaction, and independence (1966: 83).

Discovering personal worth and value and recognizing personal achievement "will help the teen ager to relinquish the secondary gratifications achieved by his obesity" (Hammar and Eddy 1966: 83).

Self-Concept

In order to develop understanding of another person's behavior, it is highly significant and in fact, necessary to gain knowledge relative to how that person perceives himself. This issue of self-perception, or self-concept, has received much attention in the literature

(Wylie 1961). While opinions regarding the nature of the development of the self-concept and the age at which the self-concept is fully developed do vary, there seems to be a general consensus that an individual's self-concept influences his inner or subjective world as well as his experiences and adaptations to the world at large (Wylie 1961).

According to Beck (1967), an individual's self-concept is a composite of a cluster of attitudes that the individual develops about self as a result of interaction with his environment, especially interaction and identification with parents, siblings, and friends. Bernard (1971) refers to self-concept as a system of one's values, attitudes, desires, and commitments. The development of this system is contingent upon the reflected appraisals of others. Schonfeld (1969) explains that the self-concept is a composite of past and current experiences and has both conscious and unconscious aspects.

In regards to the development of the self-concept, there are varied opinions. A recent research study performed by Gecas, Calonico, and Thomas (1974) takes a close look at the "Mirror Theory versus the Model Theory" in the development of the self-concept. Authorities who view the self-concept from the "mirror theory" focus on

the interaction between an individual and other people. They believe that "the self-concept is a product of reflected appraisals of others, especially significant others" (Gecas, Calonico and Thomas 1974: 68). On the other hand, social learning theory is the theoretical basis for the individuals subscribing to the "model theory." Bandura (1969) has contributed much to this stance. He believes that imitation of and incorporation of the behavior and attitudes of others form the core of self-concept. Although the explanations that these two theories offer seem to compete, it does seem possible that a blending of the two could be involved in self-concept formation. Gergen (1971), in his book The Concept of Self, seems to do exactly this. He purports that self-concept is developed via incorporating reflected appraisals, defining self in relation to others, learning behavior appropriate for specific roles, and labeling dominant modes of behavior in ways prescribed by society. Similarly, when discussing the self-concept of adolescents, the 1973 statement by the Joint Commission on Mental Health of Children alludes to the fact that the self-concept is developed not from "mirroring" alone nor from "modelling" alone. They state that:

> those theoretical views which interpret the "self" as the simple obverse of the perceptions

> of others seem to us not to reflect "normal" development, but rather the fact that normal development has not occurred (1973: 218).

Another interesting dimension relative to the issue of self-concept is the presence of an ideal self within each person (Wylie 1961). Coexistent with the impressions and beliefs one has about his actual self is an "ideal self or ego-ideal" (Rogers 1972: 44). This ideal self is the concept of the kind of person an individual would actually like to be. This ideal self is a significant portion of the personality of all individuals. As a goal, each person strives for his concept of ideal. Carl Rogers has done a great deal of research studying the self-concepts of clients who have experienced client-centered therapy. He states that:

> it is primarily the self concept which changes in therapy, not the ideal self. The latter tends to change but slightly, and its change is in the direction of becoming a less demanding, or more achievable self (1971: 258).

Self-Concept and Adolescence

When the individual enters adolescence, he brings with him all that has occurred in the previous developmental phases. Earlier as well as current experiences have impact on all adolescents (Dempsey 1972). The rapid changes that occur during adolescence seem to intensify the awareness of self (Rosenberg 1965). Radical changes in physical

appearance, increased introspection, emergence of new and strange feelings, growing autonomy, and the need to measure up to culturally determined expectations are central issues to the adolescent and greatly influence the self-concept of the adolescent (Rogers, D. 1972; Schonfeld 1969). The meaning given to these changes appears to be more important than the changes themselves.

Although the essential components of personality become integrated long before adolescence, the inter-relationship is not fully established until late adolescence (Schonfeld 1969). During childhood the self-concept is largely acquired from the limited childhood experiences which involve identification with other people, especially the parents. This type view of the self is likened to a "mirror like" view. When the individual reaches adolescence, the complexities, changes, and expanded experiences that accompany this period compel the individual to move away from the childhood view of self. The individual essentially redefines, reintegrates, refines, and broadens self-perception (Joint Commission on Mental Health of Children 1973). Dorothy Rogers says that during adolescence "the self image is being crystallized at the same time it is being revised" (1972: 56).

For the adolescent, the view of self is a highly important issue. Generally speaking, "perception of self tends to determine what a person experiences and how he experiences it" (Rogers 1972: 49). No doubt, this is true for the adolescent. It does seem probable that an adolescent who feels good about himself will have less difficulty selecting and coping with experiences that bring meaning to his life than an individual who has a low self-regard. Self-concept is also a significant factor in the adolescent's need to achieve. Perhaps more important than these facts is that the growing autonomy and physical strength of adolescents grant these individuals new found freedom (Rogers 1972). To some adolescents, this expanded self is an adjunct to formulating good views of self or a healthy self-concept. For others, a distorted picture of self may evolve and result in dangers for the self and for others.

One of the main factors which serves to modify the sort of self-concept that the adolescent develops is the attitudes of others (Rogers 1972). This really is not a shocking fact, especially if one considers the introspective engagements of adolescents and the alliances formed with the peer group. The adolescent continuously compares himself with his peers and uses his peers as a

source of evaluation (Dempsey 1972). For most adolescents, the results of this comparison and evaluation produce good, satisfying feelings. However, for some the picture is not as favorable.

> The adolescent of sharply deviant make-up may have problems. . . . His very difference may . . . undermine (his) self confidence . . . and set him brooding over his social isolation (Rogers 1972: 50).

The young person who somehow develops a poor or unhealthy self-concept frequently finds himself engaged in getting help to improve the personal picture of self. The youngster needs help in understanding, accepting, and building on his self-concept rather than in attempting to build a new one (Rogers 1972). Helping the individual to become honest with self and true to self is not an easy task. After all, the self-concept of the adolescent has been developing for years. Dorothy Rogers suggests that "constructive development of potential rather than concentration on obstacles to adjustment" (1972: 50) is particularly helpful in assisting the adolescent to enhance his self-concept. She goes further to suggest that helping the individual to appreciate his uniqueness and to recognize his distinctiveness from others is also important (Rogers 1972). This suggestion is closely akin to fostering the individual's own self-identity.

Indeed, the concept of self is an extremely important one during adolescence. "Their image of self is in a state of flux" (Schonfeld 1969: 47). The literature relative to the subject is profuse; however, more research is needed (Coopersmith 1968).

Self-Disclosure

In many sectors of our society today, a fashionable mode of living is associated with "doing your own thing." This invitation to loosen restraints and to relinquish inhibitions is in contrast to the society of old. Even with this liberated era, the fear of disclosing self to others is still one of the most pervasive problems experienced by individuals with our society (Parloff 1970).

The concept or process of self-disclosure has been studied by many authorities (Horney 1950; Jourard 1968, 1971; Mowrer 1961; Reisman 1950). Jourard (1971), a psychologist who has done extensive research in the area, refers to self-disclosure as the act of making the self manifest, revealing oneself in an open manner so that other people perceive the true self. Horney (1950) discussed self-disclosure from the vantage point that the "neurotic personality of our time" suffers tremendously because he really does not know himself. He is a self-alienated person and is, therefore, incapable of revealing self to others.

The fact that some individuals openly share personal thoughts, experiences, and feelings with others and other people either do not engage in such self-revalation or appear more reluctant to is a fairly common observation. Jourard (1971) maintains that the feeling of trust must be experienced before an individual is willing to self-disclose. In addition, he, Jourard, speaks of the "dyadic effect." This concept relates to the reciprocity between the sender and the receiver in confiding experiences. In other words, an individual is more likely to share intentions, decisions, fantasies, memories, and feelings if he likewise receives such information from the person with whom he is relating (Jourard 1968). Even with trust and the presence of the "dyadic effect" some people still do not permit others to really experience them. Perhaps the scare or fear of consequences following self-disclosure may be an inhibition. Actually there are a multitude of possibilities behind the resistance to self-disclose.

Before an individual is capable of sharing self with others, he must be in contact with self (Horney 1950; Jourard 1971; Rogers 1971). Rogers (1971) says that blocks from the past and the present inhibit many individuals from freely experiencing self. Conscious and unconscious

mechanisms evolve to protect the individual from freely and fully experiencing the self. "To be that self which one truly is involves the individual moving toward living in an open, friendly, close relationship to his own experience" (Rogers 1971: 173). Existential theory lends support to the notion that being in touch with self gives definite meaning and value to what an individual is able to personally experience and hence, allows others to know about him (Frankl 1963). While Jourard (1968) agrees with this premise, he speaks of the individual who knows himself as being authentic or "transparent." According to Jourard:

> Defensiveness and concealment of self before others unfortunately are the same mode of being that screen off a man's unconscious, his preverbal experiencing from himself. The currents of feeling, fantasy, memory, and wish that would get a man criticism from others also produce anxiety in himself; so he blocks these from the view of self and others in the service of self defense (1968: 47).

In the past, research into the issue of self-disclosure has been done in an indirect fashion. However, in more recent years, the direct evaluation of an individual's pattern of self-disclosure has been extensively studied, especially by Jourard (1971). Much of Jourard's early work focuses on the study of the rigid, interpersonal behavior patterns of nurses at the bedside.

He reports that in many instances there is a marked discrepancy between the person, the nurse, and the person, the real self. He believes that the nurse's stereotyped behavior often "is nicely designed to prevent patients from disclosing themselves" (1971: 183). Jourard's recommendations for increasing the nurse's ability to promote the patient's self-disclosure are primarily directed to nursing education programs. He believes that persons involved in educating individuals to become nurses must facilitate the student's ability to grow and to become more attuned and sensitized to his or her real or authentic self. Only with increased knowledge and understanding of self will the individual be truly alert to the real self-expressions of others (Jourard 1971). While nursing education in the 1970's does seem to be aimed in this direction, it is nonetheless significant to evaluate and implement measures that do foster the student's right to experience his or her own feelings, to acknowledge these feelings, and ultimately to grow in perceptivity and sensitivity toward the feelings of others. This evaluation and implementation should be an ongoing process.

Jourard's in-depth research into the concept of self-disclosure has greatly influenced the workings of other investigators. Using the Minnesota Multiphasic

Personality Inventory (MMPI) and the Jourard's Self Disclosure Questionnaire as tools, Truax and Wittmer (1971) studied the relationship between "Self Disclosure and Personality Adjustment" in undergraduate psychology students. Contrary to their stated hypothesis, they found that:

> subjects with the most disturbed MMPI scores disclosed more to the friend who served as the target-person than did those students with the least disturbed MMPI scores (1971: 537).

Another study, this one done by Wiebe and Williams (1972), looked at self-disclosure patterns of high school seniors to their parents. These findings concur with Jourard's and Laskow's findings (1958) and add credence to the fact that "men typically reveal less personal information about themselves to others than women" (Jourard 1971: 35). Findings such as these force one to speculate as to why men seem to disclose less than women. Part of the stereotyped role for men in our society implies that men are "supposed" to be strong, to be in control, and not to be vulnerable. Actually, this type expectation may be a tremendous burden to the male individual and may serve as a hindrance to personality growth.

Summary

In summary, a review of the literature was undertaken in order to add scope to the findings of this study. The problem of obesity and related theories were reviewed. It was found that obesity is widespread, indeed, and that the factors relative to its initiation, perpetuation, and management are multitudinous and baffling. The experience of adolescence was reviewed, also. It was evident that to fully understand and to appreciate the complexities and changes occurring during this period, the developmental phase should be examined with respect to specific subperiods. The literature also revealed that while all adolescents face many adjustments associated with the adolescent period, the obese adolescent likely copes with additional strains and stresses. The issue of self-concept was reviewed. It was found that past and current experiences influence an individual's self-perception, and that self-concept views definitely affect the subjective and objective experiences of the individual. This review of the literature also focused on the concept of self-disclosure. It was evident that an individual's willingness to share self with others is akin to his success with adapting in the world.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Introduction

In order to investigate and to compare the self-concept and self-disclosure patterns of obese and nonobese adolescents, a descriptive correlational research design was selected for this study. "Descriptive research describes what is and analyzes the findings in relation to their significance" (Notter 1974: 20). Correlational research is used to investigate and to measure the degree of relationship between two or more variables (Notter 1974).

The setting for this study and the description of the population for this study are presented. In addition, the research tools used and the procedure for collection and treatment of data will be discussed.

Setting

Because of difficulties encountered in obtaining subjects, more than one setting was used for this study. The majority of subjects (71 percent) came from a senior

class of a parochial high school located in the southwest section of the United States. The high school is a co-educational institution. The data collection procedure for these individuals was carried out in a classroom and an adjacent reading room in the particular high school. The remainder of the subjects consisted of individual adolescents living in either southwest, southeast, or northeast United States. The settings for data collection from these subjects were private homes in the particular locale.

Relative to the variety of settings used in this study, the researcher did consider the possible influence of the setting on the validity of respondent behavior. According to Fox (1969), the climate of the setting involved in administering paper-and-pencil tests in group situations may stimulate competitive tendencies of an individual or inhibit the individual. Fox (1969) also states that personal interaction on a one-to-one basis with a subject can interject pressure of its own. With these thoughts in mind, it is noteworthy to mention that both of the paper-and-pencil test instruments used in this study were designed for administration to either groups or to individuals in a one-to-one situation. In addition, it was not found that there was a relationship between the setting for data collection and reported outcomes of

previous studies that examined similar variables (Fitts 1965; Jourard 1971).

Population

The study population included male and female, obese and nonobese adolescents. An additional criterion for selection was that the subjects be between the ages of seventeen and nineteen inclusive.

A total of fifty-one subjects comprised the sample population for this study. Thirty-six of the subjects were volunteers from the senior class of a high school in southwest United States. The senior class had an enrollment of 149 students. Hence, the sample of thirty-six students represented approximately 24 percent of the total senior class.

Since this study addressed itself to obese as well as nonobese adolescents, it was speculated that the small sample of thirty-six adolescents would not provide a significant number of obese subjects. This speculation was based on the fact that "10 to 20% of the adolescent population" (Hammar and Eddy 1966: 72) are in fact obese.

Hence, twenty-three adolescents known directly or indirectly by the researcher were asked to participate in the study. These individuals were between the ages of seventeen and nineteen. In addition, it was thought that

these individuals were products of middle-class families. This consideration of social class of the subjects obtained in this manner was significant in that the researcher speculated that the participating subjects from the high school in the southwest would prove to be middle-class subjects. The researcher desired to keep the total sample under study as homogeneous as possible. Of this group of twenty-three adolescents, fifteen adolescents volunteered to participate.

According to the proposed design for the study, the total sample of fifty-one subjects was then divided into an obese group and a nonobese group. The criterion used for the selection of subjects for the obese group was that obese subjects would be at least 15 percent over the maximum normal weight for sex, age, height, and body frame as stated by the Metropolitan Life Insurance Company's guide for desirable weight (1959). The nonobese group for the study was composed of individuals with body weights within or below the normal weight ranges for sex, age, height, and body frame. The Metropolitan Life Insurance Company's guide for desirable weight was used to determine the nonobese group, also.

Using the forementioned criteria for the formation of an obese group and a nonobese group, the fifty-one

subjects were placed in the appropriate group. Eighteen subjects comprised the obese group and thirty-three subjects belonged to the nonobese group. There were eight males and ten females in the obese group. Ten males and twenty-three females comprised the nonobese group for this study.

Tool

For this descriptive correlational study, two testing instruments were utilized. The Tennessee Self Concept Scale was used to ascertain the self-concept of individual subjects. The Self Disclosure Questionnaire was employed to determine the pattern of self-disclosure.

Permission for the use of the Tennessee Self Concept Scale (TSCS) was granted by its developer, William H. Fitts, Ph.D. The TSCS was designed as a counseling aid and a research tool for the examination of self-concept. The test can be used with individuals twelve years of age or older.

The TSCS is a paper-and-pencil test and consists of one hundred self-descriptive statements. Subjects rate each statement as it applies to self on a five-point true-false scale (Appendix B). Incorporated within these one hundred statements are thirty interrelated scores which give a multidimensional picture of self-concept.

The Tennessee Self Concept Scale is a proven valid and reliable instrument. The reliability coefficients for the total scale fall mostly in the range of .80 to .90. These reliability data are based on test-retest procedures with sixty college students over a two-week period (Fitts 1965). Likewise, the validity of the instrument has been determined. Content validity was established from the unanimous agreement by seven clinical psychologists that each item on the Scale does in fact measure what it says it measures and that each item is either positive or negative in content. In addition, further validation of the instrument is reflected by its ability to discriminate between groups and within groups of individuals. Also, the instrument's validity has been approached by correlating scores on the Scale with other test instruments. Fitts (1965) reports a study done in 1960 at which time the scores on the TSCS were correlated with scores obtained by the Minnesota Multiphasic Personality Inventory (MMPI). "It is apparent that most of the scores of the Scale correlated with MMPI Scores in ways one would expect from the nature of the scores" (Fitts 1965: 24).

For the purposes of this research study, only four of the thirty interrelated scores were reported.

These four scores were the Self Criticism, Total Positive, Net Conflict, and Total Conflict Scores. The meaning and importance of these respective scores are as follows:

The Self-Criticism Score (SC): This score reflects an individual's capacity to accept or reject a positive or negative self-concept. It also indicates an individual's ability or inability to be open with self in a healthy way.

Total Positive Score (Total P): This score indicates an individual's overall level of self-esteem. This score is the most significant single score on the Scale.

Net Conflict Score: This score measures the directional trends of conflict in an individual's self-concept. It detects the extent to which an individual's responses to positive items differ from, or conflict with, the responses to negative items in the same area of self-perception.

Total Conflict Score: Disregarding the nature of the direction of conflict or difference, this score determines the total amount of conflict or difference between the individual subject's responses to positive items and negative items. If the scores are high, this

indicates confusion, contradiction, and a general conflict in self-perception. Low scores have the opposite interpretation.

As with the entire Tennessee Self Concept Scale, these four scores reported in this research have all been tested for reliability and validity. The Self-Criticism Score is reliable at .75. The Total Positive Score has a reported reliability of .92. The Net Conflict and the Total Conflict Scores are both reliable at .74. All of these reliability coefficients were based on test-retest with sixty college students over a two-week period of time (Fitts 1965).

The four scores of the TSCS that were reported in this study have all been cross-validated. Criteria utilized for the validation procedures included the determination of how the particular scores differentiate such groups as psychiatric patients and non patients; average people and psychologically integrated people; and students and patients. These reports and other extensive research findings are dealt with in the Tennessee Self Concept Scale Manual (Fitts 1965).

Results of four scores of the Tennessee Self Concept Scale were obtained and reported in this study. Scoring of the TSCS was done by Counselor Recordings and Tests services

in Nashville, Tennessee. Determination of the results was done by computer.

In order to determine the pattern of self-disclosure of subjects in this study, the Self Disclosure Questionnaire developed by Sidney Jourard, Ph.D. was used (Appendix C). The questionnaire is a paper-and-pencil test in which subjects respond to sixty items. These items were designed to measure the amount and content of self-disclosure to selected target persons. The questionnaire has been used across sex, age, and racial groups (Jourard 1968, 1971).

The sixty items in the Self Disclosure Questionnaire represent six important areas in a person's life. The six aspects about self are attitudes and interests, tastes and interests, work or studies, money, personality, and body. Each of the sixty items is rated on a zero to two-point scale for the amount disclosed to a specific target person. The ratings are summed to obtain a total self-disclosure score. In addition, the ten items comprising one of the six more specific categories may be summed to obtain a self-disclosure score for that particular aspect of self (Jourard 1971).

A report of the reliability of the Self Disclosure Questionnaire indicated that the questionnaire does in

fact have acceptable reliability. Odd-even coefficients run in the .80 to .90 range (Jourard 1971).

In 1973, Christine Panyard addressed a study to the construct validity of Jourard's self-disclosure instrument. Subjects for Panyard's study consisted of twenty-six college sophomores and twenty-six friends of these individuals. A correlation of .63 was reported for the amount of personal information exchanged between friends. In addition, the actual amount of disclosure between friends was examined and showed a .61 correlation which indicates considerable reciprocity in self-disclosure. An even higher degree of correlation was found when the variables of the amount of material disclosed to a particular friend and from this same friend were examined. This correlation proved to be .95. Panyard summarizes her findings by stating that:

> The consensual validation of the amount of personal information exchanged between friends suggested that the Self-Disclosure Questionnaire is a valid measurement of self-disclosure to a specific target person. The Self-Disclosure Questionnaire does, in fact, measure what it claims to measure (1973: 67).

In this study under consideration, scoring of the Self Disclosure Questionnaire was done by the researcher, scoring was done by hand. The results of the total

self-disclosure score were obtained and reported in this research study.

Data Collection

Data collection for this research study took place from October 13, 1975, to October 23, 1975. The process that preceded the actual administration of the test instruments started on September 30, 1975.

On September 30, 1975, the researcher attended an assembly at the high school setting. One hundred forty-nine students were in attendance. At that time, the researcher identified herself as a Registered Nurse, graduate student who was involved in a research study. The researcher described the study as one that was being conducted in order to increase knowledge about the health status of adolescents and to investigate the self-perceptions of adolescents. The description of the study did not disclose the study's focus on obesity among adolescents. This disclosure was omitted in order to increase the validity of the findings. The researcher informed the students that participation in the study involved taking two paper-and-pencil tests and having height, weight, blood pressure, pulse, and wrist measurements taken. Anonymity was guaranteed. Questions from the student group were answered, and the researcher committed herself to a follow-up visit at the conclusion

of the study. At this follow-up visit, it was promised that the general findings of the study would be shared. The researcher asked for volunteers to participate in the study.

Eighty-nine students expressed interest in participating in the study. These students were asked to sign their names and to indicate their homeroom numbers. This was done so that the researcher would have a means of contacting the subjects. The eighty-nine interested students were issued Informed Consent Agreement forms to be taken to the parents for signature (Appendix A). Along with the Informed Consent Agreement form, a letter from the researcher was sent to the parents. This letter requested parental support and shared the agreement of the school's principal for the conduction of the study (Appendix A). The students were asked to return the signed forms to the principal's office by October 7, 1975. They were told that the date of testing had not been determined, but that it would probably be within two to three weeks. The interested students were told that the researcher would be in contact with the principal and that the principal would be communicating the test date to them.

On October 7, 1975, the researcher returned to the high school. Seventeen signed Informed Consent Agreement

forms had been returned. On October 10, 1975, the researcher addressed the senior class in six different groups. The fact that only seventeen forms had been returned was shared with the students. A request was made that all students who had been issued forms return them by October 17, 1975. On October 17, 1975, a total of thirty-six signed Informed Consent Agreement forms had been returned.

The date for testing at the high school was October 23, 1975. The thirty-six subjects were assembled in a classroom. Each subject was issued a testing packet that contained a demographic data sheet, a Tennessee Self Concept Scale, and a Self Disclosure Questionnaire. Identification of the testing components was by assigned numbers. This method of identification was selected in order to preserve the privacy of the subjects. The instructions for taking the Tennessee Self Concept Scale and the Self Disclosure Questionnaire were reviewed. Special emphasis was given to the fact that when taking the Self Disclosure Questionnaire the subject was to indicate the amount of personal information disclosed to his or her closest friend. Closest friend was defined as any individual within the age group of the subject whom the subject considered his or her closest friend.

Because of the size of the group and because the students had to be present in a scheduled class in fifty minutes, twenty subjects were allowed to begin the tests; and sixteen students accompanied the researcher and her assistant to an adjacent room where the subject's height, weight, blood pressure, pulse, and wrist measurements were determined. Students engaged in the paper-and-pencil testing were monitored by the school's principal. Before beginning the tests, the students were told that at the completion of the tests, they were to proceed to the adjacent room for the stated measurements. Similarly, the students who were to be measured first were asked to return to the testing room after the measurements were obtained and recorded.

Students were measured with indoor clothing and with shoes, if the shoes did not appear to be higher than one inch. This format for attire was in keeping with the protocol of the Metropolitan Life Insurance Company. For this study, weights were measured on a pair of balanced scales. Heights were determined through the use of a calibrated measuring device attached to the wall. Weights and heights were rounded to the nearest pound and inch, respectively. This was done in order to facilitate the comparison of the subject's measurements with the stated

desirables issued by the Metropolitan Life Insurance Company. The right wrist measurement of each subject was also determined. The body frame of each subject was assessed via this measurement. Again, the Metropolitan Life Insurance Company's guide for standard measurements was used to classify each subject's body frame.

While body frame for this study was assessed utilizing wrist measurements, it is noteworthy to reiterate that subjects for this study were between the ages of seventeen and nineteen inclusive. The inclusion of seventeen-year-old subjects imposed an element of uncertainty relative to the exact determination of body frame for this age group. This uncertainty was based on the fact that the Metropolitan Life Insurance Company's guide for standard wrist measurements did not address individuals under the age of eighteen. It was speculated that this lack of availability of standard wrist measurements for the assessment of body frame of seventeen-year-olds was due to the fact that in some instances, skeletal growth is not completed by age seventeen. In reviewing the literature relative to completion of skeletal growth, it was found that there were varying opinions among authorities who address themselves to bone age, skeletal growth, and more specifically to the fusion of epiphyses of the limb

bones. There was not a consensus of agreement among authorities in this area. Some authorities say that fusion of the epiphyses of the distal ulna and distal radius takes place in at least 50 percent of females by age seventeen and in at least 50 percent of males by age nineteen (Jaffee 1972). Others maintain that the epiphyseal fusion is a highly individualized matter; and, therefore, no exact age for its occurrence can be proclaimed. Only a complete set of radiographs can ascertain bone maturation or skeletal age (Cheek 1968). Based on these discrepancies and on the realistic issues of time and economy, the researcher of this study elected to use the standard wrist measurements supplied by the Metropolitan Life Insurance Company as the point of reference for the determination of body frame of all subjects in this study.

In addition to weight, height, and wrist measurements, each subject's blood pressure and pulse were measured. These two measurements were obtained only to obscure the fact that weight status was a significant variable in this study. Blood pressure and pulse recordings were not included in the report of the findings of this study.

As previously mentioned in this chapter, some of the subjects included in this study were obtained from

settings other than the high school in the southwest. Initial contact with these subjects was either face-to-face or via a letter. The procedure for describing the study and requesting participation was the same as that used at the high school setting. The major alteration in the collection of data from these subjects was that in some instances, the researcher herself was not the one who conveyed directions for the testing or the one who performed the measurements. In these cases, the researcher relied on the assistance of responsible adults known to her. The researcher contacted the adults, described the study, and explained the protocol for data collection. Likewise, the researcher mailed packets including the two test instruments, the demographic data sheet, and the Informed Consent Agreement forms to the adults who in turn had contact with the subjects. As far as the researcher knows, the procedure for data collection was essentially the same as that which was used at the southwest high school, with the exception that data were collected on a one-to-one basis, and the setting for data collection was in private homes. Data collection carried out in this manner occurred from October 13, 1975, to October 21, 1975. Informed Consent Agreement forms were obtained from all subjects obtained in this manner.

Treatment of Data

In order to provide the most sensitive testing procedure and to account for the simultaneous influence of the factors of obesity and sex on the test scores of the subjects, the two-factor analysis of variance (ANOVA) with interaction effect was applied to the data of the Self Criticism, Total Positive, Net Conflict, and Total Conflict Scores of the Tennessee Self Concept Scale. Similarly, the two-factor analysis of variance (ANOVA) with interaction effect was applied to the data of the self-disclosure scores. The F ratio was used as the test of significance.

The two-factor analysis of variance with the interaction effect was computed on the five variables (five test scores cited above) in two steps. First, the effect of the factor of sex on the test scores was examined. Along with this, the interaction effect of the factor of group, that is whether the subject belonged to the obese group or the nonobese group, and the factor of sex were analyzed. The second analysis of variance performed examined the effect of the subject's membership in either the obese or nonobese group. This second analysis of variance also studied the interaction effect of group and sex.

Summary

This study was developed as a descriptive correlational research design which was concerned with the investigation and comparison of the self-concept and self-disclosure patterns of obese and nonobese adolescents. Several settings were used to obtain subjects for this study. The majority of subjects were obtained from a high school in the southwest section of the United States. Other subjects who comprised the sample consisted of individual adolescents living in either southwest, southeast, or northeast United States. Data were collected either at the high school setting or in private homes.

Testing instruments used in this study were the Tennessee Self Concept Scale and the Self Disclosure Questionnaire. Four scores of the Tennessee Self Concept Scale were used to assess self-concept. The two-factor analysis of variance (ANOVA) with interaction effect was used for analysis of all scores. The *F* ratio was used as the test of significance.

CHAPTER IV

ANALYSIS OF DATA

Introduction

A descriptive correlational study was performed in order to test the following hypotheses:

1. There is no significant difference between the self-concept of obese adolescents and nonobese adolescents as measured by the Tennessee Self Concept Scale.

2. There is no significant difference between the pattern of self-disclosure of obese adolescents and nonobese adolescents as measured by the Self Disclosure Questionnaire developed by Sidney Jourard, Ph.D.

3. There is no relationship between the self-concept and the pattern of self-disclosure of obese adolescents.

4. There is no relationship between the self-concept and the pattern of self-disclosure of nonobese adolescents.

The description of the sample for this study is presented in this section. Also, the analytical findings and the interpretation of the findings obtained from the

Tennessee Self Concept Scale and the Self Disclosure Questionnaire are presented.

Description of the Sample

Fifty-one subjects were represented in the sample for this study. Ages of the subjects were seventeen to nineteen inclusive. Fifty adolescents were Caucasian and one was Mexican-American. Eighteen of the subjects belonged to the obese group,and thirty-three subjects belonged to the nonobese group (Table 1).

TABLE 1

AGE AND SEX DISTRIBUTION FOR OBESE AND NONOBESE SUBJECTS

Age	Obese Subjects			Nonobese Subjects		
	Males	Females	Total	Males	Females	Total
17	3	3	6	8	21	29
18	2	6	8	2	2	4
19	3	1	4	0	0	0

The educational level of the parents of subjects in this study was examined. One of the mothers of an obese subject had not completed high school, and nine of the mothers of obese subjects had baccalaureate or higher degrees. All fathers of obese subjects except one had completed high school, and four of the fathers of obese

subjects had baccalaureate or higher degrees. In regard to the educational level of the parents of nonobese subjects, one mother and one father had not completed high school. Thirteen of the mothers of nonobese subjects had completed college, and twenty-four of the fathers of nonobese subjects had baccalaureate or higher degrees.

The parental occupation status of all subjects in the sample was examined, also. For the obese group, there were four fathers who held either professional or semi-professional positions. Three fathers were salesmen, and two fathers were managers of small businesses. Skilled or semi-skilled positions were held by five fathers; whereas one father occupied an unskilled position. Two of the fathers of obese subjects were actively enlisted in military services, and one father was retired. As for the mothers of obese subjects, eight mothers occupied professional or semi-professional positions. Three mothers held clerical positions. One mother was employed in a semi-skilled position, and one mother held an unskilled position. Four of the mothers of obese subjects were unemployed, and one mother was retired.

Relative to the parental occupational status of nonobese subjects, there were thirteen fathers involved in professional or semi-professional occupations. Seven

fathers held managerial positions, and seven fathers were salesmen. Skilled or semi-skilled jobs were held by five fathers, and one father was an unskilled worker. Professional or semi-professional positions were held by six mothers of the nonobese subjects. Three mothers held clerical positions, and one mother was a salesperson. A skilled position was held by one mother, and two mothers were unskilled workers. Nineteen mothers of nonobese subjects were unemployed, and one mother was deceased.

While the aforementioned data relative to the parental educational level and parental occupational status of subjects in the study do provide a general notion as to the social class of the subjects, the exact social class of the subjects cannot be derived from these data. However, based on the reported data only, there does appear to be a trend of equality of social class among the obese and nonobese subjects.

Some authors believe that the placement in the family and the number of children in the family affect the likelihood of a child developing obesity (Bruch 1957, 1973; Bruch and Touraine 1940). Bruch (1957, 1973) maintains that only children or first children and children with only one or two siblings are more likely to be obese than children who are the products of larger families.

Subjects who participated in this study were asked to supply data relative to the placement in the family and the number of siblings. Tables 2 and 3 report these findings.

TABLE 2

PLACEMENT IN THE FAMILY FOR OBESE AND NONOBESE SUBJECTS

Placement in Family	Obese Subjects			Nonobese Subjects		
	Male	Female	Total	Male	Female	Total
Only child	0	1	1	1	1	2
1st child	2	3	5	0	6	6
2nd-3rd child	5	4	9	4	12	16
4th-6th child	1	1	2	5	4	9
7th-9th child	0	1	1	0	0	0

TABLE 3

NUMBER OF SIBLINGS FOR OBESE AND NONOBESE SUBJECTS

Number of Siblings	Obese Subjects			Nonobese Subjects		
	Male	Female	Total	Male	Female	Total
0	0	1	1	1	1	2
1-2	5	6	11	2	7	9
3-4	2	1	3	4	7	11
5-6	1	1	2	2	6	8
7 or more	1	0	1	1	2	3

Table 2 shows that, from a sample size of eighteen obese subjects, 33 percent of the subjects were either an only child or the first child in the family. As for the thirty-three nonobese subjects in the sample, 24 percent were only or first children.

A close examination of table 3 relates significant findings. Of the total eighteen obese subjects, 67 percent were either an only child or had one or two siblings. In contrast, the analysis of data provided by the nonobese subjects showed that 33 percent of the thirty-three subjects were either an only child or had one to two siblings. When considering these findings, it must be remembered that the total sample size was small and that the obese and nonobese categories were not balanced for the number of subjects in the sample.

In summary, fifty-one adolescents participated in this study. Eight males and ten females comprised the obese group. Ten males and twenty-three females belonged to the nonobese group.

Presentation of Findings

Two test instruments were used in this study. Four scores of the Tennessee Self Concept Scale were used to evaluate the self-concept of the subjects. The four scores were the Self Criticism Score, the Total Positive Score,

the Net Conflict Score, and the Total Conflict Score. The instrument employed to assess self-disclosure was the Self Disclosure Questionnaire developed by Sidney Jourard, Ph.D.

Analysis of the four scores of the Tennessee Self Concept Scale was based upon the T-scores of the Profile Sheets. Use of the T-score forced all raw scores into a grid of normally distributed standard scores with a mean of 50 and a standard deviation of 10.

Standard means and standard deviations were not available for the Self Disclosure Questionnaire; therefore, analysis of scores was limited to the mean scores obtained from subjects in this study. The overall attainable score for the Self Disclosure Questionnaire was 120 points.

In the succeeding section that discusses the analysis of variance findings of this study, the test of the effect of sex, and the test of the interaction effect of the group and the sex are presented initially. Following this, the test of the effect of the group factor alone is discussed. Although tables that depict the variation of the effect of the group alone also show the interaction effect of group and sex, there is no reference to this in the discussion of the findings. This lack of reference is because the interaction effect findings are

presented in the first analysis of variance discussion for each test variable.

Analysis of Variance Findings

The results of the two-factor analysis of variance with interaction effect are presented in the following manner: (1) Self-concept as measured by the Self Criticism Score of the Tennessee Self Concept Scale; (2) Self-concept as measured by the Total Positive Score of the Tennessee Self Concept Scale; (3) Self-concept as measured by the Net Conflict Score of the Tennessee Self Concept Scale; (4) Self-concept as measured by the Total Conflict Score of the Tennessee Self Concept Scale; and (5) Self-disclosure as measured by the Self Disclosure Questionnaire.

Self Criticism Score of the Tennessee Self Concept Scale

In order to validly test the effect of sex alone on the Self Criticism Score, the Self Criticism Scores of all subjects were adjusted for the group effect, that is for the presence or absence of obesity (Table 4). Table 4 also indicates the interaction effect of the group factor and the sex factor on the Self Criticism Scores.

TABLE 4

ANALYSIS OF VARIANCE TESTING THE EFFECT OF SEX, AND THE INTERACTION EFFECT OF THE GROUP FACTOR AND THE SEX FACTOR ON THE SELF CRITICISM SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	160,496.49	160,469.49	
Groups (ignoring sex)	1	129.02	129.02	
Sex (adjusted for groups)	1	.14	.14	0.00
Groups x sex (adjusted for groups, sex)	1	94.99	94.99	1.19
Error	47	3,756.36	79.92	
Total	51	164,477.00		

Using the appropriate F ratio with 1 and 47 degrees of freedom, table 6 reports that there were no significant results obtained by examining the effect of sex on the Self Criticism Scores. Similarly, there were no significant results relative to the group and sex interaction on the reported scores.

The Self Criticism Scores also were examined for the effect of the presence or absence of obesity. Table 5 reports the effect of groups on the Self Criticism Scores.

TABLE 5

ANALYSIS OF VARIANCE TESTING THE EFFECT OF OBESITY OR NONOBESITY ON THE SELF CRITICISM SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	160,496.49	160,496.49	
Sex (ignoring groups)	1	3.93	3.93	
Groups (adjusted for sex)	1	125.23	125.23	1.57
Groups x Sex (adjusted for groups, sex)	1	94.99	94.99	1.19
Error	47	3,756.36	79.92	
Total	51	164,477.00		

Table 5 reports no significant results. The F ratio of 1.57 was not significantly large to conclude that the presence or absence of obesity made a difference in the way that the sample subjects scored on the Self Criticism Score of the Tennessee Self Concept Scale.

In order to illustrate the lack of significant differences in the mean scores of the groups and the sexes, the actual mean scores of the Self Criticism Score for all subjects in the study are reported in table 6.

TABLE 6

MEAN SCORES OF THE SELF CRITICISM SCORE FOR ALL SUBJECTS IN THE STUDY

Subjects	Number	Mean Scores Obtained on Self Criticism Score	Standard T-Score
Males	18	55.72	50.00
Females	33	56.30	50.00
Obese group	18	53.94	50.00
Nonobese group	33	57.27	50.00

Table 6 reports that there was not a significant difference in the mean scores of groups or sexes. The values of the mean scores achieved by the sample understudy were consistent with the standard T-Score of 50 and the standard deviation of 10, as reported by Fitts (1965).

The findings of the Self Criticism Scores for all subjects involved in this study indicated "openness and capacity for self criticism" (Fitts 1965: 2). This issue of openness was significant in that the Self Criticism Score of the Tennessee Self Concept Scale gives an indication as to whether or not the subject is likely to present an honest or artificial picture of self on remaining scores (Fitts 1965).

Total Positive Score of the Tennessee Self Concept Scale

After adjusting the Total Positive Scores for any differences due to the presence or absence of obesity, an analysis of variance was computed to examine the effect of sex on the Total Positive Scores (table 7). Table 7 also reports the interaction of the group factor and the sex factor on the Total Positive Scores.

TABLE 7

ANALYSIS OF VARIANCE TESTING THE EFFECT OF SEX, AND THE INTERACTION EFFECT OF THE GROUP FACTOR AND THE SEX FACTOR ON THE TOTAL POSITIVE SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	105,719.29	105,719.29	
Groups (ignoring sex)	1	357.52	357.52	
Sex (adjusted for groups)	1	3.59	3.59	0.06
Groups x sex (adjusted for groups, sex)	1	36.39	36.39	0.58
Error	47	2,931.21	62.37	
Total	51	109,048.00		

From table 7, the F ratio of 0.06 with 1 and 47 degrees of freedom shows that there was no significant difference between the Total Positive Scores of males and females. Similarly, the F ratio of 0.58 shows that there was not a significant interaction effect between groups and sexes on the Total Positive Scores.

An additional examination of the Total Positive Scores was performed. At this time, the Total Positive Scores were adjusted for any differences due to the effect of the factor of sex on the scores. After this adjustment, an analysis of variance was computed to examine the effect of obesity or nonobesity on the Total Positive Scores (table 8).

From table 8, it can be concluded that the difference in average responses on the Total Positive Scores was significant for the obese and nonobese groups, after sex had been adjusted. This was evidenced by an F ratio of 5.46 ($p = .025$).

Since table 7 documented that there was no significant difference between the Total Positive Scores of the sexes, the average scores can be used, without adjusting for sex, to measure the Total Positive Scores of the obese and nonobese groups. The obese subjects had an average response on the Total Positive Score of 41.94,

TABLE 8

ANALYSIS OF VARIANCE TESTING THE EFFECT OF OBESITY OR NONOBESITY ON THE TOTAL POSITIVE SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	105,719.29	105,719.29	
Sex (ignoring groups)	1	20.71	20.71	
Groups (adjusted for sex)	1	340.41	340.41	5.46*
Group x sex (adjusted for groups, sex)	1	36.39	36.39	0.58
Error	47	2,931.20	62.37	
Total	51	109,048.00		

*p = .025.

while the nonobese subjects had an average score of 47.48. The obese subjects did, in fact, score significantly lower than the nonobese subjects. However, the difference was less than one estimated standard deviation of 7.90. The difference was also less than the theoretical standard deviation of 10.00, as given by Fitts (1965).

Given the results of the findings on the Total Positive Scores, it can be interpreted that self-concept as measured by the Total Positive Score did show that the

obese subjects had an overall lower level of self-esteem than the nonobese subjects. However, this interpretation must be viewed with respect for the fact that the scores of obese subjects and nonobese subjects did not differ by even one standard deviation.

Considering the above finding, it was of interest to assess whether or not there was a relationship between the Total Positive Score for the obese subjects and the actual percentage of overweight (table 9).

TABLE 9

PERCENTAGE OF OVERWEIGHT FOR ALL OBESE SUBJECTS

Percentage of Overweight	Obese Subjects		
	Males	Females	Total
15 - 18	3	5	8
19 - 22	2	1	3
23 - 26	1	1	2
27 - 30	0	1	1
31 - 34	2	1	3
35 - 38	0	0	0
39 - 42	0	1	1

Using Pearson's product-moment correlation coefficient, the correlation between percentage of overweight

and the score on the Total Positive Score was estimated as $r = -0.4805$. Using the eighteen obese subjects of this study, this estimated correlation was judged significantly different from zero ($p = .01 < .05$). Since the correlation was negative, it can be concluded that self-concept as measured by the Total Positive Score decreased with increasing obesity. Hence, it appears as though there was a tendency for the overall level of self-esteem of the obese subjects in this study to decrease with increasing obesity.

Net Conflict Score of the Tennessee Self Concept Scale

Initially, the Net Conflict Scores were adjusted for any differences in the scores due to subjects being either obese or nonobese. After this adjustment, an analysis of variance was performed to examine the effect of sex on the Net Conflict Scores of subjects in this study (table 10). Table 10 also reports the interaction effect of group and sex on the Net Conflict Scores.

Table 10 yields insufficient evidence to conclude that the main effect due to sex (F ratio 0.58) or the interaction effect of group and sex (F ratio 0.78) were significantly different from zero.

TABLE 10

ANALYSIS OF VARIANCE TESTING THE EFFECT OF SEX, AND THE INTERACTION EFFECT OF THE GROUP FACTOR AND THE SEX FACTOR ON THE NET CONFLICT SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	145,066.67	145,066.67	
Groups (ignoring sex)	1	67.31	67.31	
Sex (adjusted for groups)	1	73.48	73.48	0.58
Groups x sex (adjusted for groups, sex)	1	100.34	100.34	0.78
Error	47	5,912.20	125.79	
Total	51	151,220.00		

The Net Conflict Scores for all subjects were also adjusted for differences due to the subjects being either male or female. After this adjustment, an analysis of variance was performed to study the effect of obesity or nonobesity on the Net Conflict Scores (table 11).

Using the F ratio of 0.69, it was found that there was not sufficient variation in the Net Conflict Scores of the obese and nonobese subjects to conclude that the group factor had a significant effect. The group averages were not significantly different from zero.

TABLE 11

ANALYSIS OF VARIANCE TESTING THE EFFECT OF OBESITY OR NONOBESITY ON THE NET CONFLICT SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	145,066.67	145,066.67	
Sex (ignoring groups)	1	53.66	53.66	
Groups (adjusted for sex)	1	87.13	87.13	0.69
Groups x sex (adjusted for groups, sex)	1	100.34	100.34	0.78
Error	47	5,912.20	125.79	
Total	51	151,220.00		

Relative to the overall scores on the Net Conflict portion of the Tennessee Self Concept Scale, the analysis of variance, as presented in tables 10 and 11, did not show whether or not overaffirmation of positive attributes or elimination of negative attributes was more or less prevalent among males or females or among obese or nonobese subjects in this study. The average scores were not significantly different from zero. Hence, self-concept as measured by the Net Conflict Score did not differ for the sex factor or for the group factor.

Total Conflict Score of the Tennessee Self Concept Scale

Subjects' scores on the Total Conflict portion of the Tennessee Self Concept Scale were adjusted for the effect of the presence or absence of obesity. An analysis of variance was then performed to test for the effect of sex on the Total Conflict Score (table 12). The interaction effect of group and sex on the Total Conflict Scores is also reported in table 12.

TABLE 12

ANALYSIS OF VARIANCE TESTING THE EFFECT OF SEX, AND THE INTERACTION EFFECT OF THE GROUP FACTOR AND THE SEX FACTOR ON THE TOTAL CONFLICT SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	131,937.96	131,937.96	
Groups (ignoring sex)	1	391.53	391.53	
Sex (adjusted for groups)	1	429.05	429.05	4.60*
Groups x sex (adjusted for groups, sex)	1	98.62	98.62	1.06
Error	47	4,384.84	93.29	
Total	51	137,242.00		

*p = .01 < .05.

Table 12 reports an F ratio of 4.60 when examining the effect of sex on the Total Conflict Scores. This was found to be significant ($p = .01 < .05$). There was no evidence that the interaction of the group factor and the sex factor had any effect on the Total Conflict Scores.

Since the F ratio of 4.60 (table 12) was found to be significant, the adjusted average scores for the two sexes were examined. The mean score for males was 46.97, and the mean score for females was 52.98. Hence, self-concept as measured by the Total Conflict Score pointed to the fact that males showed more rigidity in their self-concept and tended to present a distorted picture of the true self-image.

The Total Conflict Scores of all subjects were also adjusted for the effect of sex of each subject on the score achieved. An analysis of variance was then computed to examine the effect of obesity or nonobesity on the Total Conflict Score (table 13).

Table 13 reports that an F ratio of 2.97 was obtained, after adjusting the Total Conflict Scores for the effect of sex. This finding gave some indication that the effect of being either in the obese or nonobese group was non-zero ($p = .05 < .10$). The adjusted mean responses for the two groups were examined. Obese subjects had an

TABLE 13

ANALYSIS OF VARIANCE TESTING THE EFFECT OF OBESITY OR NONOBESITY OF THE TOTAL CONFLICT SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	131,937.96	131,937.96	
Sex (ignoring groups)	1	543.05	543.05	
Groups (adjusted for sex)	1	277.53	277.53	2.97*
Groups x sex (adjusted for groups, sex)	1	98.62	98.62	1.06
Error	47	4,384.84	93.29	
Total	51	137,242.00		

*p = .05 < .10.

adjusted mean of 47.74. Nonobese subjects had an adjusted mean score of 52.57. Interpretation of these findings showed that the obese subjects portrayed a more rigid self-concept than the nonobese subjects. Also, the obese subjects presented a distorted picture of the true self. These interpretations must be examined with the consideration of the fact that neither the obese nor the nonobese group had scores that deviated more than one standard deviation from the overall mean.

Self Disclosure Score of the
Self Disclosure Questionnaire

The Self Disclosure Scores of all subjects were adjusted for the effect of the presence or absence of obesity. This was done in order to examine the Self Disclosure Scores with respect to the effect of sex alone on the scores. Table 14 reports this analysis and also reports the interaction effect of the group factor and the sex factor on the Self Disclosure Scores of all subjects.

TABLE 14

ANALYSIS OF VARIANCE TESTING THE EFFECT OF SEX, AND THE INTERACTION EFFECT OF THE GROUP FACTOR AND THE SEX FACTOR ON THE SELF DISCLOSURE SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.*	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	313,473.62	313,473.62	
Groups (ignoring sex)	1	722.63	722.63	
Sex (adjusted for groups)	1	1,888.33	1,888.33	7.30**
Groups x sex (adjusted for groups, sex)	1	127.00	127.00	0.40
Error	46	11,903.42	258.77	
Total	50	328,115.00		

* One nonobese female did not complete all portions of the Self Disclosure Questionnaire.

**p = < .01.

Table 14 reports that the F ratio of 7.30 with 1 and 46 degrees of freedom was highly significant. From this result, it can be concluded that the effect of sex on the Self Disclosure Scores was highly significant ($p < .01$). The average responses for the sexes, after adjusting for the group factor, was 71.05 for males and 83.75 for females. These mean scores achieved were out of a possible score of 120 on the Self Disclosure Questionnaire. It can be concluded, that for this sample, males reported disclosing less personal information about self to the closest friend than did the females.

Table 14 does not report sufficient evidence to conclude that the interaction effect of the group factor and the sex factor had any influence on the Self Disclosure Scores.

The Self Disclosure Scores were also adjusted for differences due to the subjects being either male or female. After this adjustment, the scores were tested for the effect of obesity or nonobesity on the scores of the respondents (table 15).

From table 15, it is apparent that the effect of groups, after adjusting for sex, was not significant. The F ratio of 1.69 gave insufficient evidence to conclude that obesity had an effect on the Self Disclosure Scores of

TABLE 15

ANALYSIS OF VARIANCE TESTING THE EFFECT OF OBESITY OR NONOBESITY ON THE SELF DISCLOSURE SCORES OF OBESE AND NONOBESE SUBJECTS

Source of Variation	d.f.*	Sum of Squares	Mean Squared	F Ratio
Overall mean	1	313,473.62	313,473.62	
Sex (ignoring groups)	1	2,173.60	2,173.60	
Groups (adjusted for sex)	1	437.36	437.36	1.69
Groups x sex (adjusted for groups, sex)	1	127.00	127.00	0.49
Error	46	11,903.42	258,77	
Total	50	328,115.00		

*One nonobese female did not complete all portions of the Self Disclosure Questionnaire.

subjects in this sample. This is further verified by the fact that the mean scores for all males and all females in the sample were quite close to the means obtained after the adjustment for the effect of obesity (table 16).

It can be concluded that the only significant finding relative to the Self Disclosure Scores was that the factor of sex did make a difference in the test score results of the subjects. Females tended to score significantly higher, about thirteen points, than the males.

TABLE 16

SELF DISCLOSURE SCORES ADJUSTED FOR THE GROUP EFFECT AND UNADJUSTED FOR THE GROUP EFFECT

Sex	Number	$\bar{x}$ Adjusted for Group Effect	$\bar{x}$ Unadjusted for Group Effect
Male	18	71.05	70.39
Female	32	83.75	84.13

Acceptance or Rejection of Hypotheses

Five test variables were used to investigate self-concept and self-disclosure. Table 17 summarizes the results of the two-factor analysis of variance with interaction effect on each of the five tests scores.

TABLE 17

ANALYSIS OF VARIANCE FINDINGS OF THE EFFECT OF SEX, THE INTERACTION EFFECT OF GROUP AND SEX, AND THE EFFECT OF GROUP ON THE SCORES OF THE STUDIED VARIABLES

Effect	Score				
	Self Criticism	Total Positive	Net Conflict	Total Conflict	Self Disclosure
Sex	0	0	0	$.01<p<.05$	p .01
Group x sex	0	0	0	0	0
Group	0	p .025	0	$.05<p<.10$	0

Table 17 conclusively depicts the findings of the test variables used in this study. These findings can be examined in relation to the hypotheses tested in this study.

The first hypothesis stated that there is no significant difference between the self-concept of obese adolescents and nonobese adolescents as measured by the Tennessee Self Concept Scale. This hypothesis was rejected on the basis of the Total Positive Score and the Total Conflict Score (table 17).

The second hypothesis stated that there is no significant difference between the pattern of self-disclosure of obese adolescents and nonobese adolescents as measured by the Self Disclosure Questionnaire developed by Sidney Jourard, Ph.D. There was not sufficient evidence to suggest that the presence or absence of obesity made a significant difference on the self-disclosure scores of obese and nonobese subjects; therefore, the second hypothesis was not rejected on the basis of the results of the Self Disclosure Questionnaire. However, it was found that females in general did disclose significantly more than the males (table 17).

The third hypothesis stated that there is no relationship between the self-concept and pattern of

self-disclosure of obese adolescents. Since the second hypothesis could not be rejected, and since there was essentially no difference in the self-disclosure scores of obese and nonobese subjects, the third hypothesis of this study was untestable.

The fourth hypothesis stated that there is no relationship between the self-concept and pattern of self-disclosure of nonobese adolescents. This hypothesis could not be tested because the second hypothesis was not rejected. In addition, since there was essentially no difference between the self-disclosure scores of obese and nonobese subjects, the fourth hypothesis of this study could not be tested.

Summary

The purpose of this study was to investigate and to compare the self-concept and self-disclosure of obese and nonobese adolescents. The adolescent subjects for this study were tested using the Self Criticism Score, the Total Positive Score, the Net Conflict Score, and the Total Conflict Score of the Tennessee Self Concept Scale. Subjects were also tested using the Self Disclosure Questionnaire.

The scores on the five test variables were analyzed using the two-factor analysis of variance with

interaction effect. The effect of the factor of sex, the factor of group, and the interaction of group and sex were examined when the test results were analyzed. The use of tables reported the findings of the statistical testings. Results of the findings and the interpretation of the findings were presented in this chapter.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter presents a summary of this research study. Conclusions based on the analysis of the data collected in this study are discussed. In addition, the implications of this study are provided. Finally, recommendations for future research studies are offered.

Summary

The overall framework for this study was a descriptive correlational research design. The problem of this study was to investigate and to compare the self-concept and the self-disclosure patterns of obese and nonobese adolescents.

The sample for this study consisted of fifty-one adolescents who were seventeen to nineteen years of age. Of the total sample, eighteen adolescents belonged to the obese group, and thirty-three adolescents belonged to the nonobese group. There were eight males and ten females in the obese group, and ten males and twenty-three females in the nonobese group.

The test instruments used in this study were the Tennessee Self Concept Scale and the Self Disclosure Questionnaire. Four scores of the Tennessee Self Concept Scale were used to assess self-concept. These scores were the Self Criticism Score, the Total Positive Score, the Net Conflict Score, and the Total Conflict Score. In addition to the test instruments used, demographic data were obtained from each subject.

On the basis of the Total Positive and the Total Conflict Scores of the Tennessee Self Concept Scale, a significant difference was found in the self-concepts of obese and nonobese adolescents who comprised the sample for this study. Obese adolescents showed an overall lower level of self-esteem than the nonobese adolescents. In addition, the obese adolescents tended to portray a more rigid self-concept that reflected a distorted picture of the true self. In this study, obese and nonobese adolescents did not prove to be significantly different in the amount of self-disclosure. Based on the fact that obese and nonobese adolescents did not show a difference in the self-disclosure test, it was not possible to test for a relationship between the self-concept and self-disclosure of obese adolescents or of nonobese adolescents.

Conclusions

Based on the data collected and analyzed, it can be concluded that for this study, the obese adolescent subjects showed self-concepts that were significantly different from the self-concepts of the nonobese adolescent subjects. Obese adolescents showed an overall lower level of self-esteem and a more rigid self-concept that reflected a distorted picture of the true self. Also, irrespective of whether or not the adolescent was obese or nonobese, male adolescents tended to show a more rigid self-concept than did the female adolescents. This latter conclusion was based on the Total Conflict Score of the Tennessee Self Concept Scale. The other three scores of the Tennessee Self Concept Scale used in this study showed no difference in the self-concept of males and females.

Relative to the self-concept of the obese adolescent subjects, a correlation was found between the degree of obesity and the self-concept. As the level of obesity increased, there was an indication of a lower level of overall self-esteem. According to Hammar and Eddy (1966), outward appearance is of prime importance to all adolescents, and "those who deviate significantly from their peers . . . show a great deal of concern" (1966: 65). In addition, Hammar and Eddy claim that overt deviance from normal

weight is frequently accompanied by self-derogatory feelings. Thus, the findings of this research study tended to concur with the beliefs of these authors.

Another conclusion that was derived from this study was that male adolescents, irrespective as to whether or not they were obese, disclosed less personal information than did the female adolescents. This conclusion was based on the reported amount of personal information shared with the subject's closest friend. It is of interest to note that this conclusion is in keeping with the profuse work done by Sidney Jourard, Ph.D. (1968, 1971). It seems likely that males in our society have not been given the permission to openly share self with others. Indeed, this does not imply that all men are taciturn, but the depth of the kinds of information men share does differ from what females disclose. The male role demands that the man appear unsentimental, objective, unexpressive emotionally, and in control of self (Jourard 1971). This type of societal stereotype is indeed unfortunate because it seems likely that some of the intrapersonal needs of men in general must go unmet.

Relative to the issue of self-disclosure, this study did not show that obese adolescents in the sample

disclosed less personal information than the nonobese adolescents. The researcher believes that the small sample size of obese subjects, the use of the closest friend as the only target person, and the lack of obscurity in the test questions of the Self Disclosure Questionnaire may have influenced the lack of a significant finding in this area. Nevertheless, for whatever reason, obese subjects in the sample did not disclose less about self than nonobese subjects. This finding is not congruent with literature relative to the effects of outward deviances on the inner worlds of adolescents (Dwyer and Mayer 1968; Hammar and Eddy 1966).

When the demographic data supplied by the subjects was examined, it was found that the incidence of obesity was higher among only children or first children in the family. In addition, the prevalence of obesity was greater among adolescents who had either no siblings or who had one to two siblings. There is evidence in the literature to support these findings (Bruch 1957, 1973; Bruch and Touraine 1940). Bruch proposes that occurrence of obesity in childhood is closely associated with overprotectiveness and oversolicitiousness of an ambivalent mother (Bruch 1957, 1973). Even though the findings of this research study do tend to concur with Bruch's premise that obese

children are more likely to be only children or children of a family with one or two other children, it cannot be concluded that the obese adolescents under study all had early childhood experiences with ambivalent mother figures. Data collected from subjects did not include identification of age of onset of obesity. Even if the data had included this factor, there are too many other variables that would inhibit a broad generalization relative to the reason that these obese subjects in this study are in fact overweight.

Implications

Since obesity is the first among nutritional problems in our country (Braunstein 1971) and since the adolescent population is not exempt from this serious problem or from the effects of the problem, the findings of this study have implications for all nurses as well as for all other health professionals. The facts that all adolescents strive to develop a definitive identity as a person and that the obese adolescent may experience inadequate adjustments because of the feelings of being different (Ackerman 1958; Schonfeld 1969) lend support to the fact that all professionals in touch with obese adolescents must be aware of the possible implications of the overweight state for the youngster.

During the search for identity, adolescents are particularly attuned to the attitudes and feelings of others. Hence, it is imperative that nurses and all health professionals be aware of their feelings relative to obesity and be extremely cautious not to impart stigmatizing attitudes that may in fact contribute to and reinforce the already-present self-derogatory feelings of the obese adolescent.

Since obese adolescents are likely to be struggling with a poor perception of self, treatment modalities geared only toward reducing body weight must not be the sole approach. Health professionals must provide experiences that offer the adolescent the opportunity to feel good about self. The obese adolescent needs to find areas "in which he can achieve some measure of success, satisfaction, and independence" (Hammar and Eddy 1966: 83). The subjective world of the adolescent must not be ignored when health professionals are engaged with the obese young person. As health professionals, nurses have an obligation to the overweight youngster to help him understand, accept, and build on his self-concept rather than to concentrate solely on assisting him to lose weight.

The fact that obese adolescents in this study did show an overall low level of self-esteem provides impact

for the argument that health professionals have the definitive duty to engage in maneuvers to prevent obesity. Nurses are in a particularly significant position to do this. Nurses engaged in educating parents with newborns and young children should benefit from the findings of this study. Parents have the right to know and to understand the implications of the early feeding experiences, habits derived from these experiences, and the potential detriments to the physical and psychological future of their youngster.

Relative to the findings of this study regarding the self-disclosure patterns of adolescents, the implications for nurses and other health-care providers when working with male adolescents in particular are many. Jourard (1971) states that males seem obliged to hide much of the real self. He goes further to say that:

> if a man has something to hide, it follows that other people will be a threat to him; they might pry into his secrets, or he may, in an unguarded moment, reveal his true self in its nakedness, thereby exposing his areas of weakness and vulnerability (1971: 35).

With these thoughts in mind, it is obvious that health professionals cannot and must not take the issue of self-disclosure among males in general and adolescent males in particular as an insignificant issue. Jersild (1965) believes that all adolescents need to share their

strong and often confusing emotions. Hence, health professionals have the obligation to provide the opportunities for male adolescents especially to experience a permissive atmosphere conducive to being open with innermost thoughts and feelings, and to learn from the example of the professional that being honest and open can be an acceptable and healthy mode of living. Health professionals must be honest and open with self before they are able to foster self-disclosing willingness among clients.

The researcher also believes that the implications of this study have special significance for nurse educators. Educators at the undergraduate level are constantly involved with adolescents, whether the adolescents are obese or nonobese. Nurse educators who are knowledgeable about the issues of self-concept and self-disclosure among adolescents can use this insight to focus on areas of strength and to build confidence in the weaker areas of the students.

Recommendations

In review of the results and conclusions of this study, the following recommendations for future research are offered:

1. Replication of this study utilizing a larger sample and balanced subgroups.

2. Replication of this study utilizing all thirty interrelated scores of the Tennessee Self Concept Scale, in order to obtain the most conclusive findings via a multidimensional view of the self-concept.

3. Replication of this study with the same Self Disclosure Questionnaire but with the examination of respondents' behavior to more than the closest friend.

4. Replication of this study with the use of a self-disclosure test instrument which has less directness with the manner of testing self-disclosing aspects of the personality.

5. Examination of the effects of a group psychotherapy experience on the self-concept and self-disclosure of obese adolescents.

6. Examination of the incidence of obesity in the families of adolescents and the relationship that this has on the self-concept and self-disclosure of all family members.

A summary of the entire study and its results have been provided. Conclusions based on the findings and implications of this study for nurses and other health professionals were offered. It was suggested that all

health professionals be aware of the possible self-derogatory feelings that obese youngsters experience and be particularly cautious not to impart any personal stigmatizing attitudes about obesity to the adolescent. It was also suggested that health professionals provide experiences that offer the opportunity for obese adolescents to feel good about self. In addition, it was suggested that health professionals provide experiences for male adolescents that afford the youngster the chance to gain comfort with sharing innermost thoughts and feelings. This latter suggestion can be implemented via the health professional creating an environment that communicates unconditional acceptance. In addition, the health professional's behavioral example of openness and honesty with self and others should be beneficial to the youngster. Recommendations were given for future research studies relative to the issues of self-concept and self-disclosure in the obese and nonobese adolescent sector of the population. Both of these issues are highly significant for the young person who is in the process of moving from the position of a dependent child to the position of an interdependent, intimate adult who faces the complexities and responsibilities which accompany the role.

APPENDIX A

M. Suzanne Doscher
TWU Dallas Clinical Center
1810 Inwood Road
Box 224
Dallas, Texas 75235

Dear Parents:

I am a Registered Nurse graduate student at Texas Woman's University and am involved in doing research relative to health problems and concerns in adolescence. Your adolescent has expressed interest and willingness to participate in the project that I have explained to the entire senior class. I am requesting that you and your adolescent read the enclosed Informed Consent Agreement form and sign it in the presence of two (2) witnesses. It is necessary that this procedure be followed in order that your adolescent participate in the project.

I am very enthused about this project and am undertaking it with the full support of Sister Geraldine, the principal. Sister shares my interest in upgrading the efforts of professionals who are in contact with adolescents.

I appreciate your support and cooperation in this matter.

Sincerely,

M. Suzanne Doscher

INFORMED CONSENT AGREEMENT

We _____, _____, and _____ do hereby consent to the use of the results of two (2) tests taken by _____ in a report concerned with health problems and concerns in adolescence.

Margaret Suzanne Doscher has informed us that no names, pictures, or other identifying information will be used without our written approval, and we fully understand the following:

A. Two widely used standardized tests will be administered. These tests are paper-and-pencil tests.

B. The only discomfort which occurs is that which comes through writing the test. No physical pain is involved.

C. Height and weight will be determined through the use of a set of standard scales.

D. The only discomfort which occurs is that which comes through standing for the measurements to be ascertained. No physical pain is involved.

E. The benefits to be expected from the procedure(s) are a possible increase in information available for health professionals treating adolescents with health related problems.

Margaret Suzanne Doscher has explained the testing procedure to _____, and has agreed to answer any inquiries that we may have concerning the procedure. She has informed us that we might contact her at telephone number 630-1946.

I understand that I am free to withdraw my consent and discontinue participation at any time.

_____	_____
Student's signature	Mother's signature
_____	_____
Witness	Father's signature
_____	_____
Witness	Date

APPENDIX B

TENNESSEE SELF CONCEPT SCALE

Directions: Fill in your name and other information on the separate answer sheet.

The statements in this inventory are to help you describe yourself as you see yourself. Please answer them as if you were describing yourself to yourself. Read each item carefully; then select one of the five responses below and fill in the answer space on the separate answer sheet.

Don't skip any items. Answer each one. Use a soft lead pencil. Pens won't work. If you change an answer, you must erase the old answer completely and enter the new one.

Responses: Completely False--C F 1
Mostly False--M F 2
Partly False and Partly True--PF-PT 3
Mostly True--M T 4
Completely True--C T 5

1. I have a healthy body.
2. I am an attractive person.
3. I consider myself a sloppy person.
4. I am a decent sort of person.
5. I am an honest person.
6. I am a bad person.
7. I am a cheerful person.
8. I am a calm and easy going person.
9. I am a nobody.

10. I have a family that would always help me in any kind of trouble.

11. I am a member of a happy family.

12. My friends have no confidence in me.

13. I am a friendly person.

14. I am popular with me.

15. I am not interested in what other people do.

16. I do not always tell the truth.

17. I get angry sometimes.

18. I like to look nice and neat all the time.

19. I am full of aches and pains.

20. I am a sick person.

21. I am a religious person.

22. I am a moral failure.

23. I am a morally weak person.

24. I have a lot of self-control.

25. I am a hateful person.

26. I am losing my mind.

27. I am an important person to my friends and family.

28. I am not loved by my family.

29. I feel that my family doesn't trust me.

30. I am popular with women.

31. I am mad at the whole world.

32. I am hard to be friendly with.

33. Once in a while I think of things too bad to talk about.

34. Sometimes when I am not feeling well, I am cross.

35. I am neither too fat nor too thin.

36. I like my looks just the way they are.

37. I would like to change some parts of my body.

38. I am satisfied with my moral behavior.

39. I am satisfied with my relationship to God.

40. I ought to go to church more.

41. I am satisfied to be just what I am.

42. I am just as nice as I should be.

43. I despise myself.

44. I am satisfied with my family relationships.

45. I understand my family as well as I should.

46. I should trust my family more.

47. I am as sociable as I want to be.

48. I try to please others, but I don't overdo it.

49. I am no good at all from a social standpoint.

50. I do not like everyone I know.

51. Once in a while, I laught at a dirty joke.

52. I am neither too tall nor too short.

53. I don't feel as well as I should.

54. I should have more sex appeal.

55. I am as religious as I want to be.

56. I wish I could be more trustworthy.

57. I shouldn't tell so many lies.

58. I am as smart as I want to be.

59. I am not the person I would like to be.

60. I wish I didn't give up as easily as I do.

61. I treat my parents as well as I should (Use past tense if parents are not living).

62. I am too sensitive to things my family say.

63. I should love my family more.

64. I am satisfied with the way I treat other people.

65. I should be more polite to others.

66. I ought to get along better with other people.

67. I gossip a little at times.

68. At times I feel like swearing.

69. I take good care of myself physically.

70. I try to be careful about my appearance.

71. I often act like I am "all thumbs."

72. I am true to my religion in my everyday life.

73. I try to change when I know I'm doing things that are wrong.

74. I sometimes do very bad things.

75. I can always take care of myself in any situation.

76. I take the blame for things without getting mad.

77. I do things without thinking about them first.

78. I try to play fair with my friends and family.

79. I take a real interest in my family.

80. I give in to my parents (use past tense if parents are not living).

81. I try to understand the other fellow's point of view.

82. I get along well with other people.

83. I do not forgive others easily.

84. I would rather win than lose in a game.

85. I feel good most of the time.

86. I do poorly in sports and games.

87. I am a poor sleeper.

88. I do what is right most of the time.

89. I sometimes use unfair means to get ahead.

90. I have trouble doing the things that are right.

91. I solve my problems quite easily.

92. I change my mind a lot.

93. I try to run away from my problems.

94. I do my share of work at home.

95. I quarrel with my family.

96. I do not act like my family thinks I should.

97. I see good points in all the people I meet.

98. I do not feel at east with other people.

99. I find it hard to talk with strangers.

100. Once in a while I put off until tomorrow what I ought to do today.

APPENDIX C

SELF-DISCLOSURE QUESTIONNAIRE

Directions: You are to read each item on the questionnaire, and then indicate at the left of the item the extent that you have talked about that item to your closest friend; that is, the extent to which you have made yourself known to your closest friend. Use the rating-scale below to describe the extent that you have talked about each item.

Rating-Scale:

0--Have told my closest friend nothing about this aspect of me.

1--Have talked in general terms about this item. My closest friend has only a general idea about this aspect of me.

2--Have talked in full and complete detail about this item to my closest friend. He or she knows me fully in this respect, and could describe me accurately.

X--Have lied or misrepresented myself to my closest friend so that he or she has a false picture of me.

_____ 1. What I think and feel about religion; my personal religious views.

_____ 2. My personal opinions and feelings about other religious groups than my own, e.g., Protestants, Catholics, Jews, atheist.

_____ 3. My views on communism.

_____ 4. My views on the present government--the President, government, policies, etc.

_____ 5. My views on the question of racial integration in schools, transportation, etc.

_____ 6. My personal views on drinking.

_____ 7. My personal views on sexual morality--how I feel that I and others ought to behave in sexual matters.

_____ 8. My personal standards of beauty and attractiveness in women--what I consider to be attractive in a woman.

_____ 9. The things that I regard as desirable for a man to be--what I look for in a man.

_____ 10. My feeling about how parents ought to deal with children.

_____ 11. My favorite foods, the way I like food prepared, and my food dislikes.

_____ 12. My favorite beverages, and the ones I don't like.

_____ 13. My likes and dislikes in music.

_____ 14. My favorite reading matter.

_____ 15. The kinds of movies that I like to see best; the TV shows that are my favorites.

_____ 16. My tastes in clothing.

_____ 17. The style of house, and the kinds of furnishings that I like best.

_____ 18. The kind of party or social gathering that I like best, and the kind that would bore me, or that I wouldn't enjoy.

_____ 19. My favorite ways of spending spare time, e.g., hunting, reading, cards, sports events, parties, dancing, etc.

_____ 20. What I would appreciate most for a present.

_____ 21. What I find to be the worst pressures and strains in my studies.

_____ 22. What I find to be the most boring and unenjoyable aspects of my studies.

_____ 23. What I enjoy most, and get the most satisfaction from in my present studies.

_____ 24. What I feel are my shortcomings and handicaps that prevent me from studying as I'd like to, or that prevent me from getting further ahead in my studies.

_____ 25. What I feel are my special strong points and qualifications for my studies.

_____ 26. How I feel that my studies are appreciated by others (e.g., fellow-students, teacher, parents, etc.).

_____ 27. My ambitions and goals in my studies.

_____ 28. My feelings about the rewards that I get from my studies.

_____ 29. How I feel about the choice of career that I have made or will make--whether or not I'm satisfied.

_____ 30. How I really feel about the people that I go to school with.

_____ 31. How much money I make at work, or get as an allowance.

_____ 32. Whether or not I owe money; if so, how much.

_____ 33. Whom I owe money to at present; or whom I have borrowed from in the past.

_____ 34. Whether or not I have savings, and the amount.

_____ 35. Whether or not others owe me money; the amount, and who owes it to me.

_____ 36. Whether or not I gamble; if so, the way I gamble, and the extent of it.

_____ 37. All of my present sources of income--wages, fees, allowance, dividends, etc.

_____ 38. My total financial worth, including property, savings, bonds, insurance, etc.

_____ 39. My most pressing need for money right now, e.g., outstanding bills, some major purchase that is desired or needed.

_____ 40. How I budget my money--the proportion that goes to necessities, luxuries, etc.

_____ 41. The aspects of my personality that I dislike, worry about, that I regard as a handicap to me.

_____ 42. What feelings, if any, that I have trouble expressing or controlling.

_____ 43. The facts of my present sex life--including knowledge of how I get sexual gratification; any problems that I might have; with whom I have relations, if anybody.

_____ 44. Whether or not I feel that I am attractive to the opposite sex; my problems, if any, about getting favorable attention from the opposite sex.

_____ 45. Things in the past or present that I feel ashamed and guilty about.

_____ 46. The kinds of things that make me just furious.

_____ 47. What it takes to get me feeling really depressed or blue.

_____ 48. What it takes to get me real worried, anxious, and afraid.

_____ 49. What it takes to hurt my feelings deeply.

_____ 50. The kinds of things that make me especially proud of myself, elated, full of self-esteem or self-respect.

_____ 51. My feelings about the appearance of my face--things I don't like, and things that I might like about my face and head--nose, eyes, hair, teeth, etc.

_____ 52. How I wish I looked: my ideals for overall appearance.

_____ 53. My feelings about different parts of my body--legs, hips, waist, weight, chest or bust, etc.

_____ 54. Any problems and worries that I had with my appearance in the past.

_____ 55. Whether or not I now have any health problems--e.g., trouble with sleep, digestion, female complaints, heart condition, allergies, headaches, piles, etc.

_____ 56. Whether or not I have any long-range worries or concerns about my health, e.g., cancer, ulcers, heart trouble.

_____ 57. My past record of illness and treatment.

_____ 58. Whether or not I now make special effort to keep fit, healthy and attractive, e.g. calisthenics, diet.

_____ 59. My present physical measurements, e.g., height, weight, waist, etc.

_____ 60. My feelings about my adequacy in sexual behavior.

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