WEIGHT MANAGEMENT WITH OBESE AND OVERWEIGHT PEOPLE

by

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A Research Paper

Submitted in Partial Fulfillment of the

Requirements for the

Master of Science Degree

Mental Health

Approved: 2 Semester Credits

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December, 2003

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ABSTRACT

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Weight Management with Obese and Overweight People

(Title)

Mental Health	Dr. Gary Rockwood	November 2003	50 pages
(Graduate Major)	(Research Advisor)	(Month/Year)	(No. of Pages)

American Psychological Association (APA) Publication Manual, 5th edition

(Name of Style Manual Used in this Study)

Epicurus, who lived 300 years prior to the Christian era, philosophized that to be healthy a person should only eat when hungry and to eat only what one craved, no more (Boyer & Cowden, 1934). In this new millennium Epicurean has taken on a whole new meaning. Epicurean, or epicure, now provokes images of sensual pleasure and the attainment of sensuous gratification. As this word has taken a new meaning so has the definition of eating. The definition of eating has gone from eating to live, to living to eat.

Two decades ago obesity and being overweight were not considered a medical or health problem, nor were the numbers of humans with this disorder considered excessive. Today, the numbers of people that are defined as overweight or obese has doubled the number found just 20 years ago. Even though the United States seems to perpetuate the ideal of a "healthy eating

attitude", 34 percent of adults, aged 20 to 74 years, are overweight and an additional 27 percent are obese (Shell, 2002). Children have not faired any better. Twenty-seven percent of children between the ages of six to 19 are now considered overweight with that number rising significantly as time passes (The Surgeon General's Call to Action to Decrease Overweight and Obesity, 2001). In 1964 that figure was just five percent.

As the dilemma of obesity and people who are overweight continually rises, it is evident that American men and woman have become preoccupied with their weight. Forty-five percent of woman and 25 percent of men are attempting to lose weight at any given time (Shell, 2002). These men and woman feel that they need to lose weight, whether they need to or not.

This literature research was designed with three objectives in mind. The first objective was to assess the prevalence of people being overweight and/or obese in the United States. The second objective was to assess the epidemiological information relative to those that were overweight or obese. Lastly, the purpose of the literature research was to isolate and identify the therapeutic techniques that were being used to treat people that were obese or overweight. Ultimately, the goal of this research is to ascertain the most effective therapeutic methodology used to treat people who are overweight and/or obese.

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CHAPTER ONE

INTRODUCTION

People living in the United States (U.S.) have developed an insatiable desire for large servings of food products that are fatty and sweet in nature. Restaurants are now offering meals that have been "*super-sized*" and drinks called "*big-gulps*". Because of the demand for this type and quantity of food there are multiple restaurants and other food franchises, competing in a broad market of consumers that willingly support fast food type products. Bray (2000) shows that our physical bodies may not be proper vessels for this type of food; food made from saturated fats and simple carbohydrates. The degree of morbidity shares a corresponding empirical relationship to the ingestion of foods that add adipose tissue to the body. Past decades demonstrate that the human biological system does not cope well in an atmosphere of palatable foods and low energy expenditure (Bouchard, 2000). Comparing the present day diet to that of our ancestors may stimulate the mind to understand why the present day diet causes people to be overweight or obese. When our primitive ancestors wanted food they expended energy in hunting for that food. The food they consumed consisted of small amounts of meat, nuts, berries, fish, and other natural based food sources. During the past decade the scenario for food gathering has changed dramatically. Food gathering now consists of driving to the nearest fast food restaurant, and ordering a meal much larger that what our bodies' energy needs demand. Individuals also travel to grocery stores or supermarkets to buy foods that could contain high amounts of saturated fats and refined sugars. The result of this style of eating is a prevalence of people who are overweight and obese.

Societal conceptualization of body size has changed dramatically over the centuries. The Venus of Willendorf, a 25,000 year old Paleolithic statue of a very heavy lush and voluptuous

female figure, was thought to represent a fertility symbol, a sign of the times (Shell, 2002). Some of these statues depicted distinct knee abnormalities, probably depicting the very fat female figure being studied. Approximately 100 such early artworks were uncovered during this time, and may be some of the first indications that obesity was prevalent during the Paleolithic period. Later, Hippocrates opined that obesity was a medical peril, and that obesity was related to menstrual irregularities and infertility (Shell, 2002). During the 12th to the 15th century it was thought that obesity was a moral problem that could be solved by taking frequent baths, eating bulky but low fat foods, and making it a practice of working hard. The 16th and 17th centuries brought forth the first writings about obesity being an internal problem, and not a moral problem, with an imbalance of chemicals found in the body. The 18th and 19th century physicians seemed to agree with their earlier counterparts but brought forth the moral issue again, saying that eating and exercise were the problems. During this period discussions were held on the subject of body fat tissue; the concept that body fat was related to the number of fat cells the body had, and that there was a relationship between food intake and energy needs. During this period upwards of 30 doctoral theses contained the subject of obesity and subsequent treatment. Research on the subject of obesity flourished during the 20th century. Genetics, medical technology, psychotherapy, learning theory, behavioral therapy, cognitive and cognitive behavioral therapy and empirical research were prominent. This century fostered the science that proved that a complex network of neural, hormonal, metabolic and genetic factors, in part, orchestrated weight gain or loss. Medicine came to the forefront as physicians took control of the obesity factor. This was the era of pessimism (Shell, 2002). Doctors began to feel that obesity was a destination that the body controlled. The 21st century may again offer new insights in the control

of obesity. Pharmacotherapy, as a new field in the treatment of people that are overweight or obese, seems to be a bright light shining in the distance, open to managing aspects of obesity.

Along with the increased prevalence of people whom are overweight and/or obese, come far reaching physical and psychological calamities within the human body (The Surgeon General's Call, 2001; Bray, 2002; Herzog, Lowe, & Zipfel, 2003). Stigmatization, alienation, decreased self esteem, and discrimination are some of the hallmark psychological infirmities that can befall an obese or overweight person. Other psychological comorbidities that may follow obesity and/or being overweight include generalized anxiety, depression, suicide, phobias and eating disorders. Physiological problems generally seen in overweight and obese people include greater risks of heart disease; hypertension; Type-2 diabetes; musculoskeletal disorders, including osteoarthritis, and; cancers, specifically colon, endometrial, and postmenopausal breast cancer. Twenty-five percent to 46 percent of overweight people are reported to practice binge eating at least twice weekly. People who are obese are 50 to 100 percent more at risk of premature death in comparison to individuals of normal weight. Excess weight is the second largest cause of death in humans, after smoking-related deaths. Epidemiological studies show that the higher intake of overall energy, along with a high intake of animal fat and a sedentary life style will increase the rate of various cancers (Brody, 1999). An interesting note is that a body mass index (BMI) above 28 reflects a three to four times greater risk of heart disease, stroke, and diabetes mellitus.

Obesity related morbidities are occurring more frequently in children and adolescence. Obesity related problems in this age group act as an antecedent to disease in the future adult population. The likelihood that an adult will be obese is greater if that person was overweight when a child and/or adolescent. Overweight and obese children and adolescents demonstrate a

high frequency of morbidity with anomalies including type-2 diabetes, hypertension, early maturation, orthopedic problems, and increased triglyceride levels.

People who are obese and/or overweight seem to have been affected by a long term imbalance in body weight due to genetic, metabolic, endocrine, medically induced weight gain, psychological, and environmental factors (Sheperd, 2003). The bodies' energy imbalance can be taken back to its roots, which include a more sedentary lifestyle and an excessive caloric intake. Sedentary lifestyle and excessive caloric intake is prefaced by a biopsychosocial context that evolves around each person. Substantial research shows that media can have a dramatic effect on body image, which in turn can perpetuate eating disorders, to include binge eating (Mediascope, 2001). Besides the media, environmental sources such as restaurants and other food sources use business practices that tempt individuals to consume more food than is needed for energy requirements. Another element that affects eating habits includes the bodies' neurochemical mediators. As people diet neuropeptides in the brain mediate the bodies craving for fatty and sugary foods, causing a craving or increased appetite for those foods. It is also now understood that as body fat is lost through dieting, the protein leptin, which works as a satiety hormone, decreases in the brain allowing for other appetite stimulating peptides to increase a person's hunger in order to replace the lost body fat. Metabolism plays a substantial role in weight loss or gain. Basal metabolism comprises the majority of energy expenditure in a person. Although basal metabolism is somewhat genetically based, those with a lower rate will tend to put on more weight through eating. Since it is also a measure of fat-free mass, fat mass, age, and the gender of the individual, it is possible to manipulate the rate through exercise, proper eating styles, and medication.

Obesity is not, at this time, considered an eating disorder. A large number of obese individuals are programmed genetically to being prone to be overweight or obese. Obesity does not appear in the DSM-IV-TR, since it has not been established that it is consistently associated with a psychological or behavioral syndrome (American Psychiatric Association, 2000). However, simple obesity is included in the International Classification of Diseases as a general medical condition. Not until recently has the medical and psychological community become interested in establishing standards for the measurement and management of obese and overweight people. The reason that prompted research and investigation into this area was the increasingly large amounts of money being spent on obesity and related medical and psychological problems. Obesity and overweight treatments seem to remain controversial, as research, science, and theoretical and empirical analysis increase treatment modalities.

Statement of the Problem

There is extensive scientific and medical evidence and information available to people that would assist them in being physically healthy through proper nutrition. Notwithstanding this evidence and information, the majority of the U.S. population persists in being overweight or obese (The Surgeon General's Call, 2001). Media purposefully sells an unrealistic body image to the public, and the general public buys this image (Mediascope, 2001). Children and adults can see these images in magazine ads, television commercials, billboard advertisements, computer screen pop-ups, as well as within-store advertising. The images depict scantily clad super-thin female models, or parts of females' bodies representing the product in a sexual manner. Muscular male models are also portrayed in a similar fashion. Media adds to the confusion that is experienced by people as they are bombarded by advertising related to body image, as well as

fast and refined food merchandising. This confusion affects an individual's self-esteem which can lead to physical and mental morbidity and pathology.

The purpose of this study is to delineate the variety of appropriate therapeutic counseling techniques available for use with individuals, living in the U.S., who are identified as overweight or obese, and who want to be at their perceived or medically determined normal weight. In addition this study will discuss barriers to successful treatment of overweight and obese people.

Research Questions

There are 3 research questions that this study will address:

1. What counseling technique(s) would be therapeutically conducive to weight loss and/or weight stabilization?
2. What populations are characterized by obesity or people who are overweight?
3. What is the etiology of the problem of people being overweight and/or obese?

Definition of Terms

There are seven terms that must be defined in order for there to be clarity to this study.

Behavioral Therapy - A therapeutic technique which is used to help individuals unlearn problem behaviors and learn new more adaptive behaviors.

Binge Eating – The rapid consumption of large amounts of high-calorie foods that are often sweet and of a texture that is easily swallowed. The amount is generally many times the normal caloric intake.

Body Image – A term that represents the internal image or representation that individuals have of their physical appearance.

Body Mass Index (BMI) – A measure of weight in relation to height. BMI is

calculated as weight in pounds, divided by the square of the height in inches, multiplied by 703. BMI is significantly correlated with total body fat content for the majority of individuals.

Cognitive therapy - A time-limited, active, directive, structured approach used to help individuals identify and treat difficulties stemming from a persons irrational thinking, misperceptions, dysfunctional thoughts and/or faulty learning.

Comorbidity – A disease coexisting with another disease.

Efficacy – The determination and degree that treatment, or other postulates, works under ideal situations.

Epidemiological – A science that deals with the incidence, distribution, and control of a disease.

External locus of control – A person with external locus of control believes that they do not have control over their actions; that the environment and other factors determine their behavior.

Internal locus of control – A person with internal locus of control believes that they have control over their actions and the variables that affect their actions.

Neurobiological – The relationship between the circuitry of the brain and the biology of the human body.

Neuropeptide – Chemical mechanism in the body that assists the brain in the process of internal communication.

Obesity – The result of an increase of energy intake into the body (from food) and stored as fat, without the equal expenditure of the same amount of energy. The BMI of people who are obese is 30 or above.

Self-efficacy – A person's expectation that one can master situations and bring about desired outcomes through their personal efforts.

Limitations of the Study

There are four limitations that are germane to this study:

1. This study may be limited by the objective and empirical scientific evidence and studies present in text.
2. It is only within the past decade that medicine has extrapolated biological evidence related to obesity and being overweight. Empirical analysis of people who are overweight and obese is lacking.
3. Medicine and psychology/behavior theorists do not necessarily share a combined management team approach. Therefore, information could be limited.
4. Treatment, or therapy protocol, typically has not been documented following treatment.

Assumptions

The researcher assumes that management of obesity and overweight in people is a combined effort of a variety of professional people who possess the knowledge relative to the presenting problem. It is also assumed that obesity and overweight levels can be decreased or stabilized through the use of proper counseling technique, in conjunction with assistance of other professional disciplines.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter will discuss the epidemiological features of overweight and obese people in the U.S. The direct and indirect costs born to society due to people who are overweight or obese was estimated at 117 billion dollars in 2001. Four hundred thousand individuals die each year from smoking, with overweight and obesity quickly catching up to and soon passing this figure. Obesity is accountable for approximately 300,000 deaths per year in the U.S. (The Surgeon General's Call, 2001).

Epidemiological features of overweight and obesity

To understand the problem of people who are overweight or obese it is imperative to review a *measure of consistency* that is used when discussing the populations being studied. In order to be consistent in defining the characteristic of being overweight or obese, there needed to be a common public health measure of the conditions (The Surgeon General's Call, 2001). In 1998, the National Institutes of Health (NIH) began utilizing Adolphe Quetelet's Body Mass Index (BMI) as a means for defining those people who are obese or overweight. Many scientific and medical organizations now support using BMI to measure weight. The BMI significantly correlates with the human body's total body fat content. BMI values from 18.5 to 24.9 represent a healthy weight; between 25 and 29.9, overweight; between 30 and 34.9, Class I obesity; from 35.0 to 39.9, Class II obesity, and; over 40 is Class III obesity. The BMI may statistically be incorrect and overestimate body fat when a person is very muscular. It can underestimate the body fat of a person who has lost excessive muscle, such as an older person.

Epidemiological studies demonstrate the various relationships evident with those individuals considered obese or overweight (The Surgeon Generals Call, 2001; Smolak & Striegel-Moore, 2002; Bulik & Strober, 2002; Hoek, 2002). Obesity has reached epidemic proportions, affecting the prepubescent, pubescent, adolescent, young adult, adult, and older adult life stages. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity (2001) shows that 61 percent of adults in the U.S. were overweight or obese. During the past twenty years the number of adolescents who are overweight has almost tripled, going to 14 percent. Children who are overweight went from seven percent to 13 percent. Brown (2002) showed that 44 percent of men were overweight while 19 percent were obese. Twenty-eight percent of women were overweight while 18 percent were obese. In Wisconsin, 56.5 percent of adults were shown to be overweight. Research has shown that between 1980 and 1999 the number of people who were obese rose from 15 percent to 27 percent (Data Points: Weighty Matters, 2002). The number of states where the rate of obesity was greater than 15 percent rose from four states to 37 states in that same time period.

Women who are members of racial and ethnic minorities as compared to non-Hispanic white women seem to have a greater propensity of being overweight or obese (The Surgeon General's Call, 2001). Families with lower incomes tend to have more problems with being overweight or obese. Non-Hispanic white men tend to have a lower frequency of being overweight or obese than do Mexican American men. The same holds true for Non-Hispanic Black men as compared to Hispanic men. The rate of obesity and overweight for non-Hispanic white men is higher than non-Hispanic Black men. Women of all racial and ethnic groups combined, who are of the lower socioeconomic group, tended to be 50 percent more at risk of obesity than those women in a higher socioeconomic group. Men, on the other hand, are prone to

the same propensity of obesity whether they are on the high end or the low end of the socioeconomic group. Interestingly, Caucasian adolescents from the higher level socioeconomic status tended to have a lower prevalence for overweight than did their counterparts.

There is prevalence for obesity and being overweight to fluctuate by age levels. The older a person gets, the higher the prevalence for increase in obesity and weight gain. Then, at about the sixth decade, the trend generally reverses and starts to drop. Williamson (1995) indicated that the period of greatest prevalence for being overweight, for men and woman, occurs between the early twenties and early thirties. Youth seem to offer the same pattern of obesity as adults. Black and Caucasian youth were less prone to being overweight when compared to Mexican American youth. Black girls tend to have a higher prevalence of being overweight than Caucasian or Mexican American girls. Black girls who were aged nine and ten had a higher BMI than Caucasian girls of the same age. At age 19, this racial difference in BMI had increased substantially. The Surgeon General's Call (2001) offered data that estimates that 13 percent of children between the ages of six to 11 years, and 14 percent of adolescents between the ages of 12-19 years, were overweight. Within the past 10 years, the percentage of overweight children has doubled and the percentage of overweight adolescents has tripled. If one or both parents are overweight or obese, the adolescent's probability of being overweight increases to 80 percent. Dietz (2002) relates that 70 percent of children who are overweight as adolescents generally will be obese as adults. He goes on to state that there may be three mechanisms that explain why a child who is overweight may become obese as an adult. These mechanisms include the concept that childhood is a time when the child learns how to exercise and how to eat, a reflection of early maturation, and finally the possibility that children with early adipose problems were exposed to gestational diabetes. Greater obesity in adulthood is related to rapid maturation in

adolescence. Wilfley and Saelens (2002) suggest that children who are overweight or obese may find the roots of their problem in environmental change associated with affluence in the developing countries. This would include greater access to food, and the advance of new technologies that allow children and adults to work less and relax more, thus increasing their positive energy balance. But, when looking at that subgroup of individuals who were not overweight at the young ages mentioned above, one must wonder why some individuals become overweight or obese as they become older. There was no indication of what percent of this population had psychological pathology prior to becoming overweight or obese. Birch (2002) showed that 45 percent of children, ages two to 19, were not meeting dietary recommendations in society. He went on to say that their energy intake came from discretionary sugar and fat. With this he states that during the period of 1991 and 1995 participation in physical educational classes dropped from 42 percent to 25 percent. Henderson (2000) showed that at the age of 10 years non-Hispanic and Hispanic obese females did not present lowered levels of self esteem. By the ages of 13 to 14 boys and girls began to show lowered levels of self-esteem, as compared to their non-obese counterparts. With lowered levels of self-esteem there followed higher rates of sadness, nervousness and loneliness. Cornwell, Crocker, & Major (1993) state that members of stigmatized groups, who are prejudiced and discriminated against, have lowered self-esteem and a diminished self concept. This stigmatization does not seem to exist among those that are born with bodily aberrations, such as physical handicap, mental handicap, or body color or race. Obese or overweight people, who feel that they have control over their bodily condition, tend to interpret their social situations of stigmatization as their fault. Thus, affective consequences may be imparted to the individual due to their own personal reality of how others perceive them. These people may be vulnerable to depressed affect and lowered self-esteem. Relapse and weight

gain are major obstacles which follow weight reduction programs (Neumann & Nir, 1995). Neumann and Nir's report showed that personality constructs have a direct relationship to weight loss and weight maintenance. Individuals with low self esteem and an external locus of control found it harder to delay gratification and thus saw a higher weight regain during follow-up. Low self esteem individuals had doubts about the efficacy of their beliefs and behaviors, and a subsequent lack of confidence in their attitudes and behaviors. Conversely, individuals with higher self esteem showed a great deal lower weight gain during follow-up. The same was true with people who were seen to have an internal locus of control. It may be that people with low self-esteem and an external locus of control need greater encouragement and a longer program time, whereas those with higher self-esteem and an internal locus of control may need periodical retraining and booster courses.

Fifty percent of girls who are between the ages of seven to 13 indicate that they want to lose weight, when only four percent are actually overweight (Borresen & Rosenvinge, 2003). Identity formation begins during early childhood as the child establishes a stable sense of self. Parents offer themselves as role models allowing the child to have positive regard towards self and attachment figures. Without this there could be a fragmented self which in turn could lead to susceptibility to external influences, leading to a problem with impulse regulation. Atypical eating behavior is understood to be related to psychological/developmental problems, negative effects of family development, and/or the negative effects of a child's physical health.

Klein and Wing (2002) discuss the National Weight Control Registry where people are able to become members if they have lost 30 pounds and had kept the weight off for at least one year. At this time there are approximately 3000 people on this registry showing an average weight loss of 66 percent who have kept their weight off for six years. The registry shows

interesting empirically based figures. Fifty-five percent lost their weight through commercial, nutrition, and/or physical exercise programs, while 45 percent lost the weight on their own. Forty-six percent were overweight prior to the age of 11; twenty-five percent became overweight between the ages of 12 to 18. Forty-six percent had one fat parent and 27 percent had two fat parents. Of these individuals 90 percent had tried to lose weight at an earlier time but had failed.

Allison & Comuzzie (1998) offer a number of studies that show that 40-70 percent of the features of obesity in the human population are inherited. It is interesting then to see how environmental, as well as age-related differences, can make a difference on how weight is accumulated and who is more prone to accumulate it. With this in mind, it seems equally probable that besides the environmental resources mentioned above, other factors such as familial history, relationships, media, stress, depression, and psychological problems could have a direct impact on weight gain and weight stability, especially in genetically inclined individuals.

To combat the escalating rate of overweight and obesity in the U.S., the Surgeon General of the U.S. government has decreed to offer strategies that will reverse this negative trend (The Surgeon General's Call, 2001). He has set forth this decree in a message entitled, "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity." His call to action informs individuals and communities on actions and strategies that can be taken to combat this expensive and heartbreaking problem.

Causes and Influences of Overweight and Obesity

Genetic influences may lay the foundation for those who are overweight or obese, after which the environment plays a great part in engineering the structure of the human body. Before being able to employ a methodology that could assist therapists in selecting proper treatment for

those that are overweight or obese, it will be necessary to evaluate the causes and influences of the problem.

Increased susceptibility to gain weight and become overweight or obese may be genetically linked. According to Bennet and Gurin (1982) individuals have a genetically programmed desirable weight called a set point. The set point has the propensity to change with such factors as illness, moods, and age but will tend to keep adjusting itself to be within a genetically prescribed range. To do this, the body will compensate with changes in metabolism and hunger levels. Fatter parents will typically produce fatter children. BMI recordings are usually similar among family members.

Relative to genetics, one must wonder how the environment impacts on the subject of being overweight or obese. There is a large cross section of the U.S. population that has recently become obese, while others have stayed their normal weight. Why do some individuals have a much greater increase in their BMI? The answer to this question may lie in the idea that there is a subgroup of individuals who are genetically susceptible to obesity, while another group may be resistant (Friedman, 2002). The genetically susceptible group can be compared to the cave dwellers who needed to store fat or increase energy stores for hard times, while the lean group carries genes that protect them from obesity. The human body may be practicing a means of natural selection as obese people tend to have many types of disease and illness and often die at an earlier age. What is quite obvious is that there is an interaction between the environment and our genes.

Society believes that weight can be controlled. This is born out by the shear number of weight loss clinics in the United States. American standards impress the ideal of thinness, while American businesses sell products to assist people to meet a weight standard that is unrealistic.

Individuals attempting to meet this unrealistic goal equate dieting as a means to an end. Because of internal and external biopsychosocial elements dieters tend to quit these diets. The body, not wanting to starve again, prepares for famine and stores extra food as fat (Friedman, 2002). Because the body initially ate less food while on the diet, the body's metabolism, in trying to be more efficient, has slowed to a point that is making it easier for the body to weigh more on less food. At this point the cycle may begin again because the dieter begins to feel worthless. The dieter tends to give up and begin eating unrealistic amounts of food to satiate their hunger.

In the U.S., as in other developed countries, the environment is manipulated by corporations and businesses that emphasize sexuality and the importance of physical attractiveness, in an attempt to sell products (Mediascope, 2001). Media may be attempting to construct reality for personal benefit. They could be regarded as modern day story tellers, being listened to and observed by millions of sensitive people. Exposure to images of idealized men and women have increased the incidence of eating disorders, low self esteem, and depression among these populations (Mediascope, 2001). For many decades sociocultural issues have been blamed for excessive concern for appearance in men and woman (Thompson, 2003). On any given day a woman will encounter an average of 400 to 600 advertisements through the media (Mediascope, 2001). Many of these advertisements are aimed at idealizing women, and promoting an emphasis on thinness. An interesting note is that female fashion models typically weigh approximately 23 percent less than the average female, with 18-34 year olds having a seven percent chance of being as slim as a catwalk model. Only one percent has a chance of being as thin as a super model. The emotional and psychological impact media can have on a growing child, adolescent, or adult could be significant. Related to this is the competition and expectations brought on by individuals between each other, including parents, peers, and society.

Durkin (1999) discussed studies that demonstrated that individuals who had high levels of body image disturbance and who had internalized the sociocultural attitudes of thinness and attractiveness showed a great deal more depression and dissatisfaction with their appearance. She added that other potential vulnerability factors that were suggested by professionals in the field included identity confusion and low self esteem. An unanswered question arises, "Are there certain types of women or men that are more affected by the impact of the thin-ideal media?" Further research must be completed before this question can be answered. Within the last few decades it has become evident that the incidence of body dissatisfaction and eating disorders has increased in proportion to the observed change in sociocultural norms, as often defined by media and commercial sources (Durkin, 1999). The ubiquitous character of mass media, along with the pressures of society to fit in, and the cognitive torment felt by vulnerable individuals, could lead to overweight and obese lifestyles. Thompson (2003) indicates that there is a five percent overlap between a person's conceived body image and their outer image, as made by unbiased observers through actual ratings of attractiveness. He further suggests that psychological factors and clinical conditions such as eating disorders, depression and low self esteem are exacerbated by body image rather than objective appearance or outer image. Thompson (2002) showed that boys and girls between grades five to eight who received teasing or negative comments about appearance were seen to have less participation in physical activities, less pleasure from exercise, and less sense of control over physical activity. This behavior could be an adjunct to overweight or obesity.

Marketing of processed fast foods containing elevated levels of sugar products and fats have increased substantially. Between 1970 and 1997 soda consumption more than doubled, going from 21 gallons per person to 56 gallons per person (Shell, 2002). Within the past 30 years

meals eaten at fast food restaurants increased by 200 percent and at other restaurants by 100 percent. A great deal of advertising is aimed at younger children and adolescents, with the hopes of making this population a target for fast food use as they grow to adulthood. Restaurants such as Burger King and McDonalds cater to children, offering special incentives to acquire their business. The foods offered by fast food establishments tend to have a low nutritional value when compared to dietary needs.

Craving and Addiction

For decades, if not centuries, controversy has existed concerning craving as phenomena, its validity, and the relationship that it has to addiction. Craving may have its origins biologically, psychologically, or combined together and/or either one exacerbated by the environment. Defining the phenomena of craving has been confusing due to its subjective nature. Like love, anxiety, pleasure, or fear, craving is an emotion and society has yet to create a standard for the measurement of emotions. Craving can be defined as an obsessional thought, triggered by internal or external biological, psychosocial, or environmental stimuli, that can initiate an action to obtain what is being obsessed.

Arnold Ludwig, from the University of Kentucky, was a pioneer who initiated original work on the subject of craving (Langrad, Lowinson, Millman, Ruiz, 1997). Ludwig, using alcoholics, identified how drug-dependent individuals personally defined craving (Ludwig, & Stark, 1974; Ludwig, 1986). He studied how craving could be shaped by psychological factors in the setting, and how patterns of alcohol use could be conditioned. Ludwig found that patients used the label of craving, or some combination of personal dissatisfaction, to define internal and external feelings used by the alcoholic to relapse. This combination of various feelings suggests that craving is different for each individual. This seminal research initiated further debate on the

issue of the existence, definition, and/or nature of craving. A craving definition must also take into account that there may be different types or etiologies of craving. Beck, Wright, Newman & Liese (1993) point to four different types of craving experienced by the human body. They are a response to withdrawal symptoms (a need to feel well again); response to lack of leisure (attempts to improve or change mood); conditioned response to drug cues (associated neutral stimuli to acute gratification), and; response to hedonic desires (to make interaction more enjoyable). Although this research evaluated craving relative to alcohol use, this writer feels that there is a similar relationship between food and craving. Parham (1995) discusses compelling commonalities between compulsive eating and psychoactive substance dependence. He points out that some of the similarities include out of control behavior, temporary abstinence, and persistent use even though there may be serious physical/mental disorders, reliance on the behavior in order to cope with environmental demands, and eating inappropriate amounts at inappropriate times. Co-morbidity is high with alcohol as it is with overeating, an additional factor that may suggest the possibility of a disease factor.

There are a number of individuals who have a physical craving for food that causes them to overeat (Danowski & Lazaro, 2000). Certain foods that enter the body's digestive system seem to promote greater cravings for the same types of food, no matter how much the person has ingested. This could mean that some people are physiologically predisposed to overeat. Even though these individuals know that they could be hurting themselves by overeating, they are unable to resist the urge to eat more. Some of these physiologically addictive substances include sugar, alcohol, fats, white flour, caffeine, wheat, and refined carbohydrates. These substances can be defined as mood-altering substances. Danowski & Lazaro (2000, p. 11) define food sensitivity or food addiction as " . . . the physical and emotional dependence on food as a way of

altering moods to the extent that normal daily functioning is disrupted". The New England Journal of Medicine demonstrated that the brain of people with eating disorders has a different chemical makeup as compared to normal individuals (Copeland & Herzog, 1985). These individuals have a low serotonin level which predisposes them to overeat, causing a craving reaction. When refined carbohydrates are eaten the pancreas immediately releases insulin which in turn decreases blood levels of amino acids, with the exception of tryptophan. Tryptophan then stimulates the body to manufacture serotonin. As the body's blood sugar levels drop the body may experience shaking, trembling, hunger, weakness and headaches. In turn the body craves more refined carbohydrates in order to lessen the physiological reactions to the body, creating more serotonin. Sibutramine, known as Meridia, increases serotonin in the hypothalamus and in turn decreases the craving for food. However, there are a number of negative side effects shown in the Sibutramine studies, and research is ongoing.

Byalick & Ruden (2003) offer evidence that shows that various types of body/mind stress causes increases in dopamine in the nucleus accumbens while decreasing serotonin. This is accomplished when glucocorticoids are produced in the body to allow the body to respond to stress in a controlled fashion. The sensitivity of the nucleus accumbens is heightened by the glucocorticoids, and dopamine is released, thus motivating the person by local surrounding stimuli. It was shown that removing serotonin from the brain of a live rat will cause the rat to have a tendency to eat insatiably. When this happens the dopamine in the brain is no longer balanced by the serotonin. Therefore, a pattern recognition process could stimulate release of glucocorticoids which in turn would increase dopamine and decrease serotonin, causing a craving response. In a person who is genetically sensitive or sensitive by way of long term

patterned eating, the dopamine/serotonin response could initiate craving when triggered by a pattern recognition process.

Body fat mass is regulated by several hormones and neuropeptides. Two of these neuropeptides are leptin and ghrelin. Leptin, like ghrelin, is a weight regulating hormone (Campfield, 2002; Connan & Stanley, 2003). Leptin is produced by fat cells and reports nutritional information directly to the brain. People with Leptin deficiencies have reported an association with massive obesity. This hormone is the culprit that is aroused when a person is on yoyo type diets. It informs the brain, specifically the hypothalamus, that the body is starving and that it needs food. This drive to eat can be compared to the drive to breathe. A person can hold their breath but the compulsion to breathe soon erodes the conscious effort not to breath. This may be why dieting is usually ineffective; the drive to eat may be stimulated by a hormone such as leptin.

The research of Branson, Hohe, Horaber, Kral, Lentes, and Poloczna (2003) showed that a specific gene mutation may impact control on an individuals eating behavior, causing the person to binge eat, a behavior related to craving. The DSM-IV-TR (American Psychiatric Association, 2000) refers to binge eating as eating disorders not otherwise specified. Binge eating is or was being treated through psychopharmacology with medication including Desipramine, Fluvoxamine, D1-Fenfluramine, and Fluoxetine. It is also being treated through various types of psychotherapy, including behavior therapy and cognitive behavior therapy.

Counseling Techniques and Adjunct Therapy's Appropriate to Overweight and Obesity

To be effective, treatment outcomes should be goal oriented and designed to achieve and maintain clinically meaningful weight loss. This goal would ultimately affect a reduced risk for, or severity of, morbidity related to being overweight or obese. Health care practitioners have

indicated that a five to 10 percent weight loss in obese patients produces numerous health benefits, considering this a clinical success (Deusinger, Deusinger, Racette, 2003). Long-term success requires a consistent 10 percent weight loss over a one year period. The subject of obesity and people being overweight is predominately described and dealt with using the medical model or disease model of treatment. The medical or disease model diagnoses the patient as being overweight or obese, and then treats the symptoms or morbidity that are consistent with the weight problem. Because patients generally get only 12 to 15 minutes per visit at a physician's office, with approximately three to four visits per year, it is unlikely that appropriate weight loss treatment is possible under these conditions (Pi-Sunyer, 2003). The majority of private practice doctor's, of obese patients, do not confront or educate their patients on the impact of obesity on health.

Reviews of people being overweight or obese were often discussed in the realm of physical fitness by physical fitness experts and nutritionists. Discussion by these experts generally would lead one to think that weight loss is predominately a matter of exercise and proper nutrition. Very little information about being overweight or obese was retrieved that concerned psychotherapeutic modalities of weight loss. The research showed very little relevance of those that were overweight or obese to object relations theory, or to theories that support the impact of early familial and/or environmental maladjustment (Connan &Tanner, 2003). Body image and media research, however, has shown a nexus between obesity and overweight problems and the media. Research was also presented discussing structured commercial program sponsors, such as Weight Watchers. This study was held to compare weight loss, as well as health benefits achieved and maintained, through self-help weight loss versus a structured commercial program such as Weight Watchers (Anderson, Atkinsons, Greenway,

Heshka, Hill, Phinney, 2003). The self help group was given dietician counseling, and direction on available literature concerning dieting and exercise. The trial showed that after a two year randomized clinical trial, the structured commercial weight loss program provided modest weight loss, but more than self-help. Even modest weight loss is shown to be clinically significant.

Medications can be beneficial for mild to moderate obesity. Long term weight loss beyond two years, using medication, has not been studied (Sheperd, 2003). In fact, a person's ability to lose weight, using pharmacological intervention, was shown to decrease a person's ability to lose weight when there was no lifestyle intervention. Treatment of obesity with pharmacological intervention operates using one of three modalities: appetite suppression; increased metabolic activity, and; decreased absorption of caloric load. Sibutramine is an example of an appetite suppressant, ephedra with caffeine and b-3 agonists are examples of medications that increases metabolic rate, and orlistat is used to decrease caloric load absorption. The United States Food and Drug Administration have approved sibutramine and orlistat for long term obesity management. The use of these medications has shown modest weight reduction with possible deleterious side effects.

Literature discussing therapeutic modalities about obesity or being overweight was centered on the use of behavior therapy in conjunction with pharmacological and medical management (Berkowitz, Cronquist, Tershakovec, & Wadden, 2003; Deusinger, Deusinger, & Racette, 2003; Gaal, 2002). Behavior therapy was not defined, but seemed to insinuate that someone was needed to monitor the weight loss procedure, and offer support during the process. A number of studies have been conducted with adolescents, as well as with adults, which show clinically significant reductions in weight when the anorexiant subutramine and behavior therapy

were used together (Astrup, Finer, Hilsted, James, Kipelman, Rossner, Saris, Van Bacaltchuk, & Hay, 2003; Berkowitz, Cronquist, Tershakovec, Wadden, 2003; Cronquist Tershakovec, Wadden, 2003). Conversely, it was shown that results were not as compelling when behavior therapy was used with a placebo. In these studies the participants were later taken off the anorexiant due to increased blood pressure. This study suggests that further use of medications for adolescents and children should only be on an experimental basis until more efficacy and safety data are made available.

However, a number of texts discuss more specifically behavioral treatment that was used to modify or change behavior to restrict caloric consumption and expend energy (Deusinger, et al. 2003; Dietz, Khan, Serdula, 2003; Perri, 2002; Brownell & Wilson, 2002). Behavior therapy included developing skills which aided in identifying behaviors related to eating and eating activities. Included in behavior therapy were strategies which incorporated self monitoring of food intake and overeating triggers, identifying family and social support systems, goal setting, frequent contact, feedback, offering motivating incentives and recognizing barriers to weight loss. A focus was kept on lifestyle change conducive to appropriate eating or energy consumption levels as well as energy output. It seemed that behavior modification was successful in the short run, but not successful over a long period of time. Poor success was attributed to clients' purposeful elimination of self-monitoring within their behavior programs. Perri (2002) shows that approximately 20 percent of participants in behavioral programs do succeed in keeping 50 percent or greater of the weight they lost off for four years. He further demonstrated that children have a higher frequency of weight maintenance over the long term, as compared to adults. In the short term it seemed that parents and children had realized successful weight control. Brownell and Wilson (2002) show that group behavioral weight loss treatment

(GBW), with goals of modifying eating habits and increasing levels of physical activity, can be effective when working with children but only modestly successful when working with adults. For adults short term weight loss, between seven to 15 percent, was not maintained through long term follow-up. A minority of patients have been able to maintain initial weight loss over a four year period. Thirty-four percent of obese children showed a decrease in weight after 10 years. Of the initial group 30 percent were no longer obese. Children may fair better since they might be more open to psychoeducational methodology. Treatment which included psychoeducation, such as teaching healthy eating habits, activity habits, and behavior change faired better than just behavior change treatment. Children receiving only behavior change treatment showed a relapse by the five year follow-up period. `De Silva and Shafran (2003) further elucidated that treatment using the behavior model has demonstrated that the lost weight is regained by the majority of patients by the three year follow-up period. The behavior model presupposes that obesity originates through maladaptive eating habits that lead to reinforced overeating, and the absence of exercise which also becomes self reinforced.

Cognitive behavioral therapy (CBT) is one of the more effective therapeutic modalities that tends to be used for various eating disorders. Only sporadic mention of CBT was made in regards to its use for being overweight and/or obese (Bacaltchuk, Hay, 2003; Allaz, Bussien, De-Tonnac, Golay, Morel, Pichard, 2001) , 2001; Cohen, Dounchis, Frank, Matt, Saelens, Spurrell, Stein, Welch, & Wilfley, 2002). However, there was a positive efficacy for related eating disorders, such as bulimia nervosa, binge eating, and anorexia nervosa. It was interesting to note in one study positron emission tomography (PET) findings showed that cognitive behavioral therapy, when used in a psychotherapeutic modality, created metabolic changes in the brain of a patient who had depression and/or obsessive-compulsive disorder (Beaudoin, Beauregard,

Bourgouin, Leroux, Levesque, Paquette, 2003). This event suggests that cognitive behavioral therapy could change the dysfunctional neural circuitry associated with anxiety disorders. Kennerley and Waller (2003) showed that the majority of forms of cognitive behavioral therapy share some commonalities, including setting goals and self monitoring of behaviors; social support; stimulus control used to modify the style of eating; cognitive restructuring of dysfunctional thinking, and the management of stress. Using CBT to treat obesity and people who are overweight, following the typical CBT modality described above, has shown poor long term outcomes. Poor long term results with CBT have stimulated researches to look at a new approach to using CBT (Cooper, Fairburn & Hawker, 2003). The new approach is stimulated by their research which shows that patients tend to regain lost weight. This approach focuses on the element of weight regain following weight loss. People tend to regain lost weight because they did not fully meet their personal weight goal or the benefit of the weight loss, and thus abandon the program. A second reason includes not acquiring the necessary skills that would keep them at the lower weight, when they do not meet their anticipated weight loss goal, or realized the benefits of some weight loss. Cooper, Fairburn & Hawker (2003) states that present behavioral therapy for people who are overweight or obese is more characteristic of behaviorally oriented group psychoeducation interventions. Previous cognitive behavioral therapy seems to follow a more structured prescriptive format. Theoretically this format does not portray cognitive behavior in its true essence. Cognitive behavioral treatment for bulimia nervosa, anorexia nervosa, and body image problems have been successfully developed, but conversely none of these treatments are used as modalities for achieving weight loss or weight management once weight is lost. Although weight may be lost using these types of therapies none have been developed specifically to assist an individual in losing weight and managing weight regain.

Cognitive behavior analysis has led to a treatment which stimulates weight loss and minimizes weight regain (Cooper, Fairburn& Hawker, 2003). The goals of this treatment are to scrutinize and correct the past weight problems that people faced when they decided to abandon weight loss and weight management attempts. This new perspective of weight loss therapy and continued and consistent weight management will soon be the product of new outcome studies.

Another therapy used to change eating disorder behaviors, specifically bulimia nervosa (BN) and binge eating disorder (BED), is interpersonal psychotherapy (IPT) (Stein, R., Welch, R., Wilfley, D., 2003). Interpersonal psychotherapy was initially developed to treat depression. Since that time its methodology has been adapted to treat other mood disorders as well as BN and BED. IPT therapeutically administers to a client's interpersonal functioning, negative affect, and self-esteem. Current interpersonal patterns and life situations are changed via this method. Stein, Welch, &Wilfrey (2003) state that there is compelling evidence that interpersonal factors significantly affect the etiology and maintenance of eating disorders. IPT has been shown to offer significant and well maintained improvements in eating disorders. When compared to cognitive behavior therapy IPT demonstrated higher rates of abstinence when used with BN. No use of IPT with overweight or obese people has been found. However, there may be justification to use this therapeutic modality as some causes of obesity and overweight are related to familial, environmental, and psychosocial etiology.

Sporadic literature was found supporting the use of Prochaska and DiClemente's transtheoretical model of behavior change for people who are overweight or obese. This model supports movement through stages to include the precontemplation, contemplation, preparation, action, and maintenance stages (Johnson & Prochaska, 1998). The attitude found in the literature tended to generalize the control people had of overweight causing factors, by indicating that the

necessary components included less energy intake, more energy output, and active social support.

Population Level Focus

Brownell (2002) suggests focusing on a public health model which would call for action at the population level. He proposes six policy proposals which include: stimulate opportunities for physical activity; regulate food advertising aimed at children; prohibit fast food and soft drinks in schools; school lunch programs should be restructured to enhance proper nutrition; subsidize the sale of healthy foods, and; tax foods with poor nutritional value. Epstein and Goldfield (2002) stipulate that there are specific factors that could be implemented that would help control overweight and obesity. These factors include: decrease access to non-nutritional foods; implement parental modeling; use self monitoring, and; initiate positive reinforcement relative to proper eating habits.

Although 50 percent of the people living in countries such as Brazil, Finland, Russia, Paraguay, England, Peru, Uruguay, Chile, Bulgaria, Mexico, Saudi Arabia, and Columbia are overweight or obese, there was no mention of any type of therapeutic weight loss therapy being used (Shell, 2002). Overweight and obesity are endemic in India throughout the middle class level of society. China's obesity rates have quadrupled in the past 10 years. Japan has seen an increase of people being overweight or obese, with 25 percent of men being overweight and 20 percent of woman being overweight. Yet, statistics supporting the efficacy of therapeutic modalities is practically non-existent. The majority of research and studies that were found indicate that more research on obesity and being overweight must be conducted, and that new theoretical developments are welcomed.

CHAPTER THREE

SUMMARY, ANALYSIS AND RECOMMENDATIONS

Summary

This study has demonstrated that obesity is the result of genetic, behavioral, environmental, physiological, social, and cultural factors. Literature regarding obesity and being overweight typically was discussed using the medical model, which may tend to render an individual powerless and without control. Epidemiological studies show that 55 percent of adults in the U.S. are either overweight or obese (The Surgeon General's Call, 2001). Obesity and being overweight are higher in females who are members of racial or ethnic minorities. Females who are of the lower socioeconomic group are 50 percent more at risk for being obese than women at a higher socioeconomic level. With men the rate of obesity is the same whether on the high or low level of the socioeconomic scale. The older a person gets the higher the prevalence for obesity and weight gain, until about the sixth decade when the trend reverses. The greatest prevalence for obesity is between the early twenty's and early thirty's. Adolescents who are overweight carry a 70 percent probability that they will be overweight or obese as adults. If either one or both parents are overweight a child's chances of being overweight increases to 80 percent. Childhood obesity and being overweight seems to prosper in affluent developing countries (Wilfley & Saelens, 2002). This may be stimulated by the environment itself which supports more free time, including watching television, playing electronic games and avoiding physical activity.

Genetic influences may predispose a certain population to gain excess weight, but it seems to be the environment that stimulates and enhances the propensity to gain excess weight. Exposure to images of idealized men and woman through various media have increased the

incidence of eating disorders, low self esteem, and depression (Mediascope, 2001). Media can have negative psychosocial and emotional impact on an individual that could create irrational and confused thoughts and behaviors, leading to eating disorders including overeating and obesity. Media creates expectations while constructing social context for the people in the media's proximity. Thompson (2003) purports that negative body image, enhanced by the media, creates conditions such as eating disorders, depression, and low self esteem. He also showed how teasing or receiving negative comments about one's appearance leads to a decrease in physical activity. A decrease in physical activity may exacerbate a tendency to gain weight. Overweight and obesity treatment studies and literature review generally found information about energy input and energy output via proper nutrition, proper exercise, and social reinforcement. Information regarding the psychotherapeutic framework of obesity and overeating was minimal. Pharmacological and medical intervention was typical of most professional writings, whereas general magazine discussions presented information that included exercise, diet, and social support. Very little information was found which discussed the comorbid or psychosocial aspects as it related to psychological implications of obesity or being overweight, either pre or post obesity or being overweight.

Throughout the review of literature, the uses of behavioral strategies were suggested in the management of the behaviors which led to or supported being overweight or obese. This area however was ill defined. Descriptions of behavior strategies were limited to lifestyle changes in support of either decreased energy intake or increased energy output. Behavior strategies were implemented to change unrealistic weight goals, correct problematic coping or problem solving skills, increase low self-efficacy, and increase or maintain energy output through exercise. Lifestyle change was the focus of behavioral therapy. Behavior therapy showed success in the

short run but not long term. Perri (2002) showed that 20 percent of participants in behavioral programs kept 50 percent or greater of the weight they lost off for at least four years. Children were shown to do much better in the long term studies than did adults (Brownell, 2000).

Cognitive behavioral therapy was shown to be the most effective modality of treatment in working with eating disorders (Bacaltchuk, Hay, 2003; Allaz 2001; Cohen, 2002). However, the long term outcome of CBT when working with people who were overweight or obese was rather poor. CBT is used extensively in the treatment of bulimia and binge eating, two eating disorders sharing a relationship with obesity. As part of CBT individual and group client meetings can be used to set goals, self-monitor, experiment, offer motivation, deal with negative thoughts, and provide social reinforcement. Success of weight loss is partly determined by behavioral and program consistency, modification of lifestyle, and support by family, peers, and society. Intact self-esteem and a positive and intact self-efficacy were consistently discussed in relation to positive program results. Cooper, Fairburn & Hawker (2003) have developed a model cognitive-behavioral strategy which identifies behavioral components involved in long term weight management. They suggest that this model will slow long term weight regain, which is the nemesis of people losing weight.

Obesity and overweight are endemic throughout the world. Literature supporting therapeutic modalities in treating obesity and overweight was sporadic and minimal.

Critical Analysis

Psychological emphasis of treatment protocol in the management of obesity and overweight was minimal. The medical community has worked extensively for years with the disease and still admits that a great deal more research and investigation must be done. The medical community does recognize that a comprehensive management approach is the most

appropriate modality to use to ameliorate the problem of obesity. Communication between the medical community and the psychotherapeutic community seems to be problematic, and a definite reason for the lack of supporting psychological care and data. Another significant problem seems to be the lack of empirical analysis with follow-up outcome studies on obesity within the psychological treatment environment. Minimal to no research or outcome studies were found in the therapeutic areas of brief therapy, solution-focused therapy, reality therapy, etc.

Neurobiological and genetic research is happening at a rapid pace. New discoveries in obesity and overweight treatment modalities are expected at an even quicker pace. There are studies that support the influence that psychotherapy has in making biological changes to the body via the neurological system (Beaudoin, 2003). Further research may offer even greater support to the use of psychotherapy.

Sixty-one percent of adults are overweight or obese. Twenty-five percent of children are considered obese (Brown, 1999). Within this group of overweight or obese people psychological comorbidities such as anxiety, depression, suicide, phobias and eating disorders prevail. Physiological problems of overweight and obesity include heart disease, hypertension, type-2 diabetes, musculoskeletal disorders, and cancer. The increased medical costs of people who are overweight or obese is stimulating greater research into the causes of this growing problem. Reimbursement from third party payers to therapists and physicians for working with people who are overweight or obese has typically not been allowed. This may be a part of the dilemma that frustrates the health community from not being able to slow down the comorbidity that follows obesity. The alternative to decreasing the problem of people being overweight and/or obese is the higher cost of health care to the people due to greater comorbidity.

The problem of children who are overweight or obese may be directly related to environmental change associated with affluence in developing countries. Environmental change could include greater access to food, and advanced technology offering children and adults greater relaxation time. Birch (2002) states that 45 percent of children do not meet dietary recommendations, and that energy intake is coming from discretionary sugar and fats. Obese 13 to 14 year old boys and girls show lowered levels of self-esteem as compared to their non-obese counterparts (Henderson, 2002). It was shown that with lower levels of self-esteem there was a corresponding increase in sadness, nervousness, and loneliness. This group tends to have lowered self esteem, diminished self concept, and tend to interpret their situations as their fault. This psychological profile could lead to decreased weight management with subsequent weight gain. Children of obese parents tend to be obese as adults. Atypical eating behaviors may be related to psychological/developmental problems, negative effects of family development, and/or negative effects of a child's physical health (Borresen & Rosenvinge, 2003).

As with children, genetics plays a substantial role in predisposing some adults to excessive weight gain. Forty to 70 percent of the features of obesity in humans are inherited. This does not mean that these percentages dictate the number of people who will become obese; it could mean that within this group there is a higher susceptibility to weight gain. This genetic predisposition could be exacerbated by the environment, or even through secondary pathology. The effects which media has on body image, and subsequent weight gain, may superimpose an environmental impact on those individuals who have an affinity to gain weight because of genetics. Exposure to images of idealized men and woman has increased the incidence of eating disorders, low self-esteem, and depression (Mediascope, 2001). Individuals vulnerable to

marketing pressure, mass media, societal and familial pressures may be prone to being overweight and obese.

Counseling technique(s) therapeutically conducive to weight loss or weight stabilization.

Treatment outcomes of obesity and over weight therapy should be goal oriented and able to achieve and maintain clinically meaningful weight loss. Behavioral and Cognitive Behavioral therapy showed modest short term success, with poor results in the long term. Perri (2002) showed that behavioral oriented programs had approximately 20 percent success in keeping 50 percent or more of the weight which they lost off, for four years or more. Many studies indicated that more research and modification of existing behavioral and cognitive behavioral therapy be enlisted into the therapeutic process. Group behavior weight loss (GBW) showed modest results in the short term with lesser results in the long term. Children using GBW showed impressive short term and long term weight loss. This result may be in juxtaposition with the child's lowered frequency of habit reinforcement, which supported or caused the weight gain initially. Conversely, this might indicate that adults have a higher rate of habit reinforcement and that a specific focus on habit extinction, through cognitive-behavioral therapy or another behavioral program therapy, might be a viable route to greater weight loss.

Commercial weight loss programs demonstrated modest success in the short term with long term results being less successful. Commercial plans enlist a number of techniques including physical activity, nutrition, calorie deprivation, food and activity plans, and in some, such as Weight Watchers, a behavior modification plan primarily emphasizing cognitive restructuring of eating habits. Even though these types of programs are only marginally successful in short term, people tend to use them on a long term basis. The failure of commercial

weight loss programs is directly related to not following through on self monitoring, a low internal locus of control with greater external locus of control, and repeated relapse.

Recommendations

Amelioration of the problem of people being overweight and obese, and the myriad medical and psychological problems which follow it should be priorities within society, the family, and the individual. Losing excess weight is not just a matter of equalizing body energy input to body energy output; it is a dramatic relationship between the environment and the human mind and body. Obesity and being overweight can be likened to a sturdy pyramid of life, with one level relying on and/or affecting the other levels. It seems evident that affecting any one level of this pyramid will have a parallel effect or impact on the other two levels. Society lays the foundation of this pyramid with the family comprising the next layer, resilient but relying on the foundation for support, while the family supports the next level, the individual. In turn the individual is a member of the societal level, and can have a dramatic impact on the behaviors of this level.

Society plays a profound role in affecting the upper levels of this pyramid. Comprised of communities, health care, media, industry, organizations, and government, the foundation affects the attitudes, values, health, and the ideals of its members. Affecting this level will proportionately affect subsequent levels. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity (2001) is a social/behavioral model that aims to educate the societal level of the pyramid. The plan calls for psychoeducation for health care providers, teachers, health profession students, consumers, and employers. Psychoeducation is aimed at the prevention and treatment of people who are overweight or obese. Psychoeducation includes promoting healthier food choices, ensures greater amounts of physical activity, and advises

parents to limit or reduce the time spent watching television. Reimbursement from third party payers has not typically been available to therapists and physicians for the treatment of overweight and obese people. Part of the Surgeon General's model recommends that a mechanism for appropriate reimbursement to providers be created. At this first level of the pyramid professionals in the mental health field could stimulate this recommendation by offering leadership through professional association involvement, and membership support of empirical research of the overweight and obese population. Mental health professionals could assist in developing systematic collaboration between the medical and psychological community. A clearinghouse and cooperative atmosphere between therapeutic disciplines, within the psychotherapeutic arena as well as the medical community, would create a positive treatment modality as part of the foundation and superstructure of obesity and overweight.

This writer envisions a cooperative relationship between the mental health field and the medical field. The mental health profession could initiate a public and societal therapeutic cognitive and behavior model that would act as a comprehensive psychoeducation instrument. Therapeutic intervention at the societal level will no doubt affect the upper levels of the life pyramid.

The familial level of the pyramid can be positively affected by group as well as individual psychotherapies (Brownell, 2002). It is at this level that a mentoring relationship between parents and offspring, as well as between individual offspring, and between offspring and peers, would stimulate proper nutrition, effective exercise programs, and a comprehensive understanding of pertinent environmental factors which act upon an individual's cognitions. Parents, acting as role models and caretakers, are often times responsible for the nutrition and motivation of their offspring. Ongoing psychoeducation of parents, in relationship to nutrition,

exercise, and motivation would be hallmarks to maintaining proper weight goals. Weight management, with normal and overweight and obese individual family members would enhance present healthy weight management, as well as the outlook of future progeny. The time is at hand for mental health professionals to begin educating physicians, educators and media about the psychological and biological ramifications of etiological and phenomenological sources of the problem of people being overweight and obese. Parents and children are sensitive to behavior group therapy, so a referral to a mental health professional, by other medical professionals, could substantially increase a family's chance of maintaining present weight or reducing the problem of people being overweight and obese. Finally, parents must begin educating their children about the perverse nature of advertising and media, and how it affects the family. Parents themselves should consider their role as mentors and stimulate positive family values, to include good nutrition, proper exercise, high self-esteem, and a consistent ongoing intent to evaluate media and advertising.

On the top of the pyramid stands the individual. To date many physicians recommend that their patients cut down on ingested calories. The physician may recommend psycho-pharmaceuticals to enhance weight reduction. Often the treatment stops at this point and the client returns home until the next visit, which may only happen if the patient becomes ill or injured. Physicians may pre-empt the possibility of their patients being overweight or obese by understanding the signs and symptoms of the overweight or obese malady. Referral to the appropriate mental health professional could assist the patient in stopping or managing what could be a progressive disease. Individual assessment ascertaining the etiological background of the overweight or obese person would identify the appropriate therapeutic and psychoeducation modality of treatment. Whether family history, emotional and/or physical trauma, family or peer

stress, or other factors, the mental health professional would commence neutralizing the dominate factors stimulating weight gain. Before this can happen the physician or medical professional must realize that the mental health professional supports this type of background and can deal with such maladies. Educating the physician or medical professional would be the beginning of a more consistent referral pattern to the mental health professionals.

Although no therapeutic methodology for weight loss showed long term success, except for GBT with children, the use of cognitive behavioral therapy did show short term efficacy. It's effectiveness in the short term for weight loss may be an indication that cognitive behavioral therapy could be used to manage weight loss once the loss has occurred. The concern then is not with initial weight loss but with weight management once the weight has been stabilized. Therapists then should be concerned with weight management, and ideally begin developing cognitive behavioral strategies which lend themselves to the control or management of weight following weight loss. Along with strategy development, outcome studies could be used to test the hypothesis that these new therapeutic strategies show long term efficacy.

An intact or high self-esteem, and an internal locus of control, are precursors to long term weight loss or weight management. Initially assessing the magnitude of a client's self esteem and ascertaining the locus of control would further increase the efficacy of treatment. Psychometric testing as well as diagnostic interviewing can be used to quantify the level of self esteem and the determined locus of control. Counselors and other mental health professionals might take greater responsibility in creating outcome studies, showing the relationship of self-esteem and locus of control to being overweight or obese.

Managed care has had a profound affect on the treatment of those people who are overweight and obese. It seems paradoxical that obesity is a precursor to so many secondary

medical anomalies and yet is not defined as a disease in the United States. Binge eating disorder, a compulsive eating disorder which may lead to obesity, meets DSM-IV-TR criterion. The DSM-IV-TR (American Psychiatric Association, 2000) shows the overall prevalence of binge eating disorder to have a mean of 30 percent of the population in weight control programs. Approximately 20 to 30 percent of individuals who present to treatment due to binge eating disorder are obese (Parham, 1995). The remaining 70 to 80 percent who are not binge eaters have the same medical calamities as the binge eaters. Inclusion of obesity in the DSM-IV-TR could allow managed care a greater responsibility in the treatment of overweight and obesity. Mental health professionals, through professional affiliations, might assist in this effort through educating professionals in the medical field.

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