Review of Literature
OBESITY

Obesity is also known as CORPULENCE, OR FATNESS, excessive accumulation of body fat, usually caused by the consumption of more calories than the body can use. The excess calories are then stored as fat, or adipose tissue. In general, however, a body weight 20 percent or more over the optimum tends to be associated with obesity (Encyclopedia Britannica, 2002).

The body’s ability to adjust food intake to body needs can be disturbed by numerous factors. Of these, hormone imbalances and glandular defects are believed to be of least importance, being demonstrable in only about 5 percent of all obese individuals. Although obesity may be familial, suggestive of a genetic predisposition to fat accumulation, there is also evidence that early feeding patterns imposed by the obese mother upon her offspring may play a major role in a cultural, rather than genetic, transmission of obesity from one generation to the next. More generally, the distinctive way of life of a nation and the individual’s behavioral and emotional reactions to it may contribute significantly to widespread obesity. Among the affluent populations, an abundant supply of readily available high-calorie foods and beverages, coupled with increasingly sedentary living habits that markedly reduce caloric needs, can easily lead to overeating. The stresses and tensions of modern living also cause some individuals to turn to foods and alcoholic drinks for “relief” (Encyclopedia Britannica, 2002).

Obesity may be undesirable from an aesthetic sense, especially in parts of the world where slimness is the popular preference; it is also a serious medical problem. Generally, obese persons have a shorter life expectancy; they suffer earlier, more often and more severely from a large number of diseases than do
their normal-weight counterparts. They are also more likely to die prematurely of degenerative diseases of the heart, arteries and kidneys. More die of accidents and diabetes and more constitute poor surgical risks than persons with normal weight. Mental health is also affected; behavioral consequences of an obese appearance, ranging from shyness and withdrawal to overly bold self-assertion, may be rooted in neuroses and psychoses (Encyclopedia Britannica, 2002).

The prevention of obesity involves two things— identifying and removing causative factors— both psychological and biological and removal of surplus fat by planning diet intake.

Gopalan (1998) from Nutritional Foundation of India reported that in urban centers of India the “problem of obesity was found to be more prevalent in the upper-middle class than among slum dwellers”. The prevalence rate of obesity found by Gopalan (1998) was 1 per cent for males and 4 per cent for females in the slums while the corresponding figures for the high income group among the middle class were 32.2 per cent and 50 per cent, respectively. Gopalan (1998) also found that—

- More females than males were overweight in all age groups in both locations.
- The prevalence of overweight/obesity was higher among age groups higher than 40 years. The prevalence of obesity (BMI>30) was about 3 per cent in males and about 14 per cent in females above 40 years.
- The prevalence of overweight/obesity in the urban middle class is less than what has been reported for Europe or the USA. Thus, in the UK, 50 per cent of men have been reported to be overweight, as against 32 per cent in the high
socioeconomic group investigated in India; 15 per cent of men and 16.5 per cent of women in Europe have been reported to be obese (BMI>30) as against 4 per cent of males and 14 per cent of females above 40 years in India. The corresponding figures for obesity in the USA were 19.7 per cent and 24.7 per cent.

- The prevalence of abdominal adiposity was higher than the prevalence of overweight/obesity (BMI>25). When the subjects of the middle class were considered together, abdominal adiposity was found in 49.7 per cent of males and 34.9 per cent of females; the figures for general overweight (BMI>25) were 19.6 per cent in the males and 44.5 per cent in females.
- Abdominal obesity does not always go hand in hand with overweight/obesity; it was found in 68.1 per cent of males who were overweight (BMI>25) and 58 per cent of females. In these subjects, greater the grade of BMI, the greater was the abdominal adiposity.
- It is noteworthy that nearly a third of overweight males and more than 40 per cent of overweight females did not show abdominal obesity.
- On the other hand, nearly 19 per cent of non-overweight male subjects with BMI<25 and 22 per cent of females showed abdominal obesity.
- Thus, abdominal obesity was found to frequently, (but not always), coexist with general obesity.

Overweight and obesity result from a complex interaction between genes and the environment characterized by long-term energy imbalances due to sedentary lifestyle, excessive caloric
consumption or both (National Research Council, 1989). Views of psychological factors as cause of obesity have undergone tremendous changes over the years. Research has moved from simplistic views such as research for the obese personality to considering multiple and changing psychological factors.

In the present study a comparison of obese and normal weight adolescents of both the genders on Personality and its dimensions, Perceived Stress and Strain, Perceived Family Environment and its dimensions, Parental Acceptance Rejection dimensions, Attitude towards Body Image and its dimensions, Indices of Negative Affect, viz., Irritability and Depression, Optimism, Psychological Well-Being and Eating habits was done.

**PERSONALITY**

‘Personality’ refers to a general style of interacting with the world, especially with other people – whether one is withdrawn or outgoing, excitable or placid, conscientious or careless, kind or stern. A basic assumption of the personality concept is that people do differ from one another in their style of behavior, in ways that are at least relatively consistent across time and place (Ferguson, 2000).

According to most personality psychologists, ‘personality’ refers to “characteristics that are pervasive and enduring and form a central part of the person’s identity” (Costa and McCrae, 1995).

Eysenck (1947, 1960, 1963 and 1967) on the basis of research and factor analysis put forth a dimensional system of personality which posits three major independent dimensions viz., Extraversion/Introversion (E/I), Neuroticism/Stability (N) and Psychoticism (P). He also proposed a psychobiological model to
parallel these three dimensions (Eysenck, 1967, 1981; Eysenck and Eysenck, 1985). Mohan (1997, 1998, 1999a, 1999b) The model is a hierarchical one which conceptualizes that each of the three broad dimensions are subdivided at a lower level into narrower and more specific traits.

Eysenck and Eysenck (1985) reported that each of these personality dimensions includes certain sub-traits. The sub-traits of these dimensions are:

**Extraversion**: The sub-traits of Extraversion are—sociable, lively, active, assertive, sensation seeking, carefree, dominant, surgent and venturesome.

**Neuroticism**: The sub-traits of Neuroticism are—anxious, depressed, guilty, low self-esteem, tense, irrational, shy, moody and emotional.

**Psychoticism**: The sub-traits of Psychoticism are—aggressive, cold, eccentric, impersonal, impulsive, antisocial, unempathic, creative and tough minded.

In addition, the Revised Eysenck Personality Questionnaire (EPQ-R) also contains a **Lie (Social Desirability) Scale** which was first incorporated in Eysenck Personality Inventory (EPI) to measure a tendency on the part of subjects to fake ‘good’ responses. Now it measures an independent stable factor that possibly denotes some degree of social naivete (Eysenck and Eysenck, 1975). Using both the child and adult versions of the EPQ, Eysenck and Eysenck (1975) have shown that supertraits of Extraversion, Neuroticism and Psychoticism are replicable across cultures (Eysenck and Eysenck, 1982; Eysenck and Eysenck, 1983; Barrett and Eysenck, 1984; Eysenck and Long, 1986; Mohan et al., 1987, Mohan, 2000).
EYSENCKIAN PERSONALITY DIMENSIONS AND OBESITY

Powers (1980) reported that in schizophrenic patients the major disturbances in body-image have generally been categorized as defects in ego-boundaries.

Compared to obese non-bingers, obese individuals with Binge Eating Disorder tend to be heavier (Telch et al., 1988), report greater psychological distress and are more likely to have experienced a psychiatric illness (especially affective disorders) (Marcus et al., 1988; Marcus et al., 1990; Yanovski et al., 1993; Specker et al., 1994; Kenardy et al., 1996; Mussell et al., 1996; Molinari et al., 1997). They also report an earlier onset of obesity and a greater percentage of their lifetime on a diet (de Zwaan et al., 1992; Brody et al., 1994). Some studies have shown histories of greater weight fluctuation or weight cycling in obese binge eaters compared with non-bingers, (Spitzer et al., 1992; de Zwaan et al., 1992; Brody et al., 1994) but others have not (Kuehnel and Wadden, 1994). These individuals are also more likely than non-binging obese people to drop out of behavioral weight loss programs (Marcus et al., 1988) and to regain weight more quickly (Keefe et al., 1984; Marcus et al., 1988; Yanovski et al., 1994).

Morrison (1997) found that the scores for subjective well-being and locus of control were most strongly correlated with the positive pole of neuroticism (emotional stability), conscientiousness and extraversion.

In a meta-analysis of 137 personality traits as correlates of subjective well-being, DeNeve end Cooper (1998) found that Extraversion and agreeableness predicted positive affect reliably. Also they found that a low level of neuroticism was the strongest predictor of life satisfaction and happiness and of a low level of
negative affect. One may infer therefore that neuroticism may be associated with anxiety eating leading to obesity.

Becker et al. (2001) found that obese women had the highest rates of mental disorders overall as well as for all subgroups of mental disorders. Furthermore, they found that obese women had higher rate of comorbidity.

Faith et al. (2001) reported that in men, increasing BMI was associated with increased extraversion and psychoticism, while among women, increasing BMI was significantly associated with increased neuroticism and reduced extraversion.

Most common comorbid condition with eating disorders including obesity are affective disorders and obsessive compulsive disorder. Other anxiety disorders, personality disorders and substance use disorders have also been described as comorbid accompaniments. However, the characteristic of eating disorders are unique and profound.

Halmi et al. (1991) reported a 65 percent lifetime prevalence of anxiety disorders in patients with anorexia nervosa the most common anxiety disorders were social phobia and OCD. Srinivasagam et al. (1995) found consistent obsessive behavior in patients who had recovered from anorexia nervosa. Srinivasagam et al. (1995) therefore reached the conclusion that obsessive traits may be related to the onset of eating disorder rather than arising as a consequence of the disorder or as an unrelated condition.

An especially high score on neuroticism has been mentioned as a predisposition to experience long-term levels of negative affects such as fear, anger, shame, sadness and emotional eating (Costa and McCrae 1995).
According to Budjanovac (1996) passive form of behavior disorders indicate that neurotic adolescents do not manifest any forms of antisocial behavior (e.g., physical aggression, quarreling, keeping company with asocial persons), but do manifest some negative behavior patterns (e.g., seclusiveness, passivity, lack of interest, etc.) that can lead to eating disorders.

Bosma et al. (1999) found that external locus of control, neuroticism and absence of active problem focused coping explained almost fifty percent of the correlation between childhood social class and self rated poor health.

Low SES, perinatal complications, neuroticism and impulsivity have been cited as generic risk factors for disease. In a recent Dutch study (Neeleman et al., 2001), people reporting more somatic disorders were at high risk of more psychiatric disease and vice versa. Neuroticism and low educational attainment were the strongest correlates of clustering of psychiatric and somatic disorders including obesity.

As reported by Heatherton and Hebl, (1998) Cultural ideas about beauty, expressed by the media and reinforced by family and friends, undoubtedly motivate young persons to strive for the ideal shape through dieting behavior. At the same time, poor family relationships may increase a young person's need for control, which could be expressed through abnormal expressions of bodily self-restriction. However, neither of these factors has been consistently found significant across studies.

Possessing a stigma, a strongly undesirable physical or dispositional characteristic, typically has negative repercussions on many aspects of ones life. It has adverse effects on factors, such as interactions with non-stigmatized individuals and on many aspects
of self concept including body image. The stigma of obesity is particularly detrimental because it involves the perception of a deformation in the body as well as characterological weakness. Thus obesity evokes immediate negative response from the observers not only because of its displeasing aesthetic qualities but also because obese individuals are held personally responsible for their condition than they are to hold blind individuals responsible. Obese individuals who offer some medical reason for their weight problems (example a thyroid condition) or provide evidence that they are on diet to lose weight are less likely to be stigmatized. Hence Obesity and neurotic behavior may coexist. (Heatherton and Hebl, 1998).

Canning and Meyer (1966) found that obese had less chance of admission even with comparable grades, IQ scores, and attendance records. As empirically it is known that education, occupation and income are strongly interrelated social class variables, such discrimination against the obese may prevent them from rising in the socioeconomic levels. Based on this logic, Canning and Meyer (1966) conclude that obesity may be one cause of downward social mobility. Thus a girl may be in lower socioeconomic class because she is obese rather than obese because she is in a lower socioeconomic class being overweight/obese may need to high anxiety and neurotic behavior.

Similarly, Powers (1980), for example, mentions that fashion industry designs clothes for very slim people. He cites many examples, for example, wedding dresses for women are not made beyond size 10. Perhaps the implication is that women over this size are so unattractive that they will never get married. Similarly obese
or large women are frowned upon by many salesgirls when making 
enquiries about clothes of their sizes.

Heatherton and Hebl (1998) also reported that during puberty 
most girls gain approximately 25 pounds which is not evenly 
distributed across body but rather the added weight predominantly 
settles in the breast, hip and thigh regions. This pattern of weight 
gain is particularly displeasing to many adolescent girls because it 
conflicts with their cultural ideas of a thin, tall and fat free female 
figure. Heightened concern with body weight is responsible for 
initiation of chronic dieting and its commonly related disordered 
eating. By the 9th grade nearly all female adolescents report having 
at some point dieted in an attempt to lose weight. The societal 
emphasis on female thinness may explain why women were more 
concerned with eating, weight and appearance across the life span 
than the man and they feel more stigmatized in many ways that men 
do not, that is why girls manifest more reported eating disorders.

SELF-ESTEEM

Self-esteem refers to one's feelings about one's inside 
qualities. This includes his feeling of worth as human being, sense 
of purpose in life and how lovable he thinks he is. It is quite usual to 
find that Self-esteem is confused with Self-image. Self-image refers 
to one's thoughts about his outside appearance, what he thinks 
others see. This includes his looks, talents, popularity, or 
accomplishments (Johnston, 2001).

Self-esteem can also be interpreted as the degree to which 
one possesses self respect and self acceptance. Self-esteem 
generally connects the positive and negative value one places on 
one's own attributes (Feshbach and Weiner, 1991). Global and 
domain specific self-esteem has been shown to influence a
significant number of psychological and behavioral variables in children and adolescents. Self-Esteem has been negatively correlated with smoking frequency (Botvin et al., 1993), suppressed anger (Johnson and Greene, 1991), drug abuse (Unger et al., 1997) and depression symptomatology (Caldwell et al., 1997) in African American children and adolescents. Another recent study found that drinking level was negatively related to self-esteem in African American college students who had alcoholic parents (Rodney and Rodney, 1996). Thus, self-esteem is an important index of one's well-being.

**SELF-ESTEEM AND OBESITY**

West and Prinz (1987) found that lower self-esteem, along with lowered internal locus of control and emotional, psychiatric and adjustment disorders are likely contributors to depression. Similarly Ayers et al., 1988 found that Self-esteem is negatively related to stress and positively to Health.

Baggs (1988) found positive correlations between body satisfaction and self-esteem, clothing interest and body satisfaction and self-esteem and fashion opinion leadership qualities.

Boyd (1989) found that women redefined their negative experiences into more positive and realistic ones that included recognizing additional sources of stress that contributed to low self-esteem and negative body image. Johnston and Mash (1989) reported that poor self-esteem was linked to low parental satisfaction.

Ogdan and Evans (1996) demonstrated that even erroneous classification of adolescents in overweight group leads to lowering of self-esteem and increases depression.
Another study by Centers for Disease Control and Prevention (1996) finds that improved cardiovascular fitness improved the quality of life in overweight patients by improving mood, self-esteem and physical function in daily activities.

According to another study by Mussell and Mitchell (1998) among individuals with eating disorders including anorexia nervosa and obesity low self-esteem and difficulties in interpersonal relationships are often reported among those seeking treatment for these illnesses. Mussell and Mitchell (1998) further reported that individuals who derive self-esteem exclusively based on the perception of body image may be at increased risk for development of an eating disorders and weight related problems.

Warner (2001) mentioned about a new study that revealed that a girl's self-image begins to deteriorate as early as age 5 if she's overweight.

HEALTH LOCUS OF CONTROL

Originally developed within the framework of Rotter's (1954) social learning theory, the locus of control construct refers to the degree to which an individual believes the occurrence of reinforcements is contingent on his or her own behavior. The factors involved with reinforcement expectancy are labeled "external" and "internal" control. In short, internal locus of control refers to the perception of positive or negative events as being a consequence of one's own actions and thereby under one's own personal control. In contrast, external locus of control refers to the perception of positive or negative events as being unrelated to one's own behavior in certain situations and thereby beyond personal control. As a general principle, the locus of control variable may be thought of as affecting
behavior as a function of expectancy and reinforcement within a specific situation (Carlisle-Frank, 1991).

Rotter’s Locus of Control Scale (Rotter, 1966), a generalized measure of internal versus external locus of control, continues to be widely used to assess perceived control in health-related research. However, many health researchers have chosen to use more situation-specific, health-related locus of control measures in their investigations.

Research has also suggested that internal locus of control is associated with nurturing and accepting parents who display consistent discipline (Rotter, 1975). Reinforcement theory easily explains why this might be the case. Nurturing parents are likely to be attentive to their children’s behavior and prepared to respond to the child’s actions with reinforcers to encourage the practice of good health habits and discourage poor ones. Yet, it is not only parents that must be aware of their influence on the establishment of children’s health beliefs. In a study of the health beliefs of elementary school children and their mothers, Mechanic (1964) found that the mother’s health beliefs were at best only slightly related to those of her children. His work implied that peers, teachers and mass media are other important factors that influence health beliefs.

**HEALTH LOCUS OF CONTROL, HEALTH BEHAVIOR AND OBESITY**

The most widely used health related locus of control measure is the Multidimensional Health Locus of Control (MHLC) Scale (Wallston et al., 1978). It yields two dimensions, viz., Internal and External. The Internal Health Locus of Control (IHLC) dimension assesses the degree to which one believes one’s health status is
influenced by one's own behavior. External Health Locus of Control (EHLC) dimension assesses the degree to which one believes that one's health outcome is under the control of powerful others (i.e. medical professionals) or is determined by fate, luck, or chance. People who score high on the IHLC are said to have a sense of responsibility for their own health (Wallston and Wallston, 1982).

Internal locus of control has been associated with knowledge about disease (Seeman and Evans, 1962), ability to stop smoking (Coan, 1973), ability to lose weight (Balch and Ross, 1975), adherence to a medical regimen (Lewis et al., 1978), effective use of birth control (MacDonald, 1970), getting preventive inoculations (Dabbs and Kirscht, 1971), wearing seat belts (Williams, 1972) and getting regular dental checkups (Williams, 1972).

Sonstroem and Walker (1973) studied locus of control and attitudes toward physical fitness and found that internals had more favorable attitudes towards physical activity, obtained significantly better fitness scores and engaged in greater amounts of voluntary physical exercise than did externals (Carlisle-Frank, 1991).

Like the research on health-facilitating behaviors, research on individuals who attempt to overcome health-damaging behaviors has also shown internals are often better off than externals (James et al., 1965; Williams, 1967; Coan, 1973; Mlott and Mlott, 1975; Naditch, 1975; Pryer and Distefano, 1977; Craig and Brown, 1984).

A possible effect of control beliefs in practice is how one takes care of oneself. Lau (1982) divides practiced health habits along two separate dimensions. Certain behaviors involve self-care, such as brushing one's teeth, getting exercise, getting sufficient sleep and eating a good diet. Other health habits involve utilizing the services of medical professionals, like maintaining regular checkups at a
doctor or dentist, or receiving preventive vaccines. It has been identified that practicing a variety of different health habits as a child is associated with optimistic beliefs in the controllability of health, both for beliefs in the efficacy of self-care and of doctors. Peterson et al. (1988) have found that the tendency to adopt a pessimistic explanation of personal misfortune in young adulthood was associated with poor physical health in later life.

ANXIETY

Anxiety is a stage characterized by heightened autonomic system activity, specifically activation of the sympathetic nervous system, i.e., increased heart rate, blood pressure, respiration and muscle tone, subjective feelings of tensions and cognitions involve apprehensions and worrying (Kazdin, 2000).

STATE-TRAIT ANXIETY

People differ markedly in their tendency to experience anxiety. Whereas, some people experience anxiety quite often, others feel anxious only rarely. Many of the early difficulties in defining anxiety stemmed from the failure to distinguish between state and trait anxiety. Spielberger (1966) defined state anxiety as transient feelings of anxiety at a given moment in time (i.e., I feel anxious). Trait anxiety on the other hand reflects individual differences in anxiety proneness or people’s tendency to appraise situation as threatening and to respond to those situations with State Anxiety behaviors (i.e., I am an anxious person). Trait anxiety does not imply that a person is chronically anxious but rather that he or she has a higher tendency than low trait anxious people to experience anxiety.

Low and high trait anxiety people do not differ in their responses to nonthreatening situations or in situations that nearly
everyone would appraise as stressful. Rather the State Anxiety reactions of Trait Anxious individuals exceed those of low Trait Anxious people only in situations that Trait Anxious people appraise as more threatening than low anxious people.

In the last few decades professional psychologists and psychiatrists have arrived at a conclusion that people seem to be becoming more anxious, worrying about safety, social acceptance and job security than what was the status in the past (e.g., Rosen, 1998; Sloan, 1996). In fact some authors have labeled the twentieth century “the age of anxiety” (e.g., Spielberger and Rickman, 1990).

ANXIETY, HEALTH BEHAVIOR AND OBESITY

Anxiety is a predisposing factor to major depression (Bagby et al., 1995; Surtees and Wainwright, 1996) and to suicide attempts (Coryell et al., 1982; Coryell et al., 1986). Examining changes in anxiety might be particularly important. More people visit doctors for anxiety than for colds and anxiety is now more common than depression (Barlow, 1988). Researchers have also linked self-reports of anxiety to a wide variety of physical ailments, including asthma, obesity, coronary heart disease, irritable bowel syndrome, ulcers and inflammatory bowel disease (Edelmann, 1992). Psychological consequences are also important. Out of the Big Five traits, neuroticism (closely related to anxiety) was the strongest predictor of life satisfaction, happiness and negative affect in a recent meta-analysis (DeNeve and Cooper, 1998). High levels of trait anxiety impair cognitive performance (Seipp, 1991) including in everyday tasks (Matthews et al., 1990), predispose people to marital problems (O’Leary and Smith, 1991) and sometimes lead to
overeating, alcohol and drug abuse (Chambless et al., 1987; Mullaney and Trippett, 1979; Smail et al., 1984). Thus high anxiety levels have implications for health and health related behavior.

Females with bulimia have long been noted to have a high prevalence of depression, anxiety disorders, substance abuse and personality disorders, particularly cluster B personality disorders (i.e., borderline, histrionic, narcissistic and antisocial personality disorders) (Braun et al., 1994). A similar profile of psychiatric comorbidity has been reported among male bulimics (Camargo and Carlat, 1991).

A study by Christensen and Pettijohn (2001) indicated that carbohydrate craving increases with negative moods. Over two thirds of carbohydrate cravers indicated that they experience mood states such as anxiety, fatigue and depression prior to their cravings.

Bellodi et al. (2001) found that the familial risk for obsessive-compulsive-disorder in the families of eating disorder proband's was far above the comparison subjects. This suggests that a relationship exists between psychopathological aspects of eating disorders and anxiety.

PERCEPTION OF STRESS AND STRAIN

According to the modern definition of Stress, Stress is perceived to be interaction between the person and environment. Lazarus (1966) defined stress as an organizing concept that includes a number of variables and processes – relationship between the person and the environment that is appraised by the person as taxing or exceeding his/her resources and endangering his/her well-being.
According to Baum et al. (1985), stress by itself does not lead to an illness unless an individual has difficulties in dealing with the situation due to his/her personality characteristics. As during stress the person feels a danger to his well-being and virtually all systems (e.g., the heart and blood vessels, the immune system, the lungs, the digestive system, the sensory organs and brain) are activated to meet the perceived danger. Under most circumstances, once the threat has passed, the response becomes inactivated and levels of stress hormones return to normal, a condition called the relaxation response.

STRAIN

Strain refers to a person’s maladjusted psychological, physiological, and behavior responses to stress. Its interchangeably used with tension, anxiety, etc. Operationally it may manifest itself in reported anxiety, depression, psychosomatic complaints, debilities, and changes in blood chemistry, etc.

Stressors can be grouped into two categories—

a) Life Events Stress
b) Chronic Stress or Daily Hassles

PRESUMPTIVE STRESSFUL LIFE EVENTS

Life events are measured by specific questionnaire schedules designed for these purpose. A life events scale is a comprehensive list of external events and situations (stressors) that are hypothesized to place demands that tend to exceed the average capacity of a person to adapt. The difficulty in adaptation leads to physical and psychological changes or dysfunction, creating a risk for psychological disorder or physical disease.

Singh et al. (1984) in the manual on PSLE Scale reported that Life events scale was designed as a means of naturalistic
assessment of exposure to stressors, in distinction to the manipulation of stressor exposure in experimental research. Four types of naturalistic stressor assessment techniques are used in research literature: exposure to out of the ordinary, demanding events, such as divorce, that have the capacity to change the patterns of life or arouse very unpleasant feelings (life events); self reports of perceived stressfulness and appraisals of threat posed by events (stress appraisals), enduring or recurring difficulties and strains in an area of life (chronic stressors); and exposure to smaller, relatively minor and normally less emotionally arousing events whose effects disperse in a day or two (daily events and hassles). Although primarily conceived of a comprehensive lists of exposure to discrete events outside the organism, life events scales often combine two or more of these approaches, sometimes including cognitive appraisals of stressors, measuring dimensions such as severity, frequency, controllability and expected pattern of events.

A frequent goal of research on stress exposure is to establish the relationship between the exposure to stressor and some health outcome in order to evaluate stress as a risk factor for disease.

**HASSLES AND UPLIFTS**

Minor events or Daily Hassles and Uplifts are those stressors, which a person experiences in the process of his every day life - situations. They are different from major life-events and tend to have different negative behavioral outcomes (Kanner et al., 1981).

Hassles are irritants – things that annoy or bother you, they can make one upset or angry where as uplifts are events that make one feel good, joyful, glad, or satisfied. Some hassles and uplifts occur on a regular basis and others are relatively rare. Some have
only a slight effect, others have strong effect. The role of daily stress or hassles as a causal factor in illness has motivated widespread use of measures of stress based on life events and daily hassles.

Hassles are the minor negative events while uplifts are minor positive events (Stone et al., 1987). Hassles and Uplifts are related to the health of an individual. The influence of stress may be more apparent if it is linked in time with the health outcome investigated and therefore the best measure for illness research is likely to be minor events (Swartz, 1991).

**Stress and the Immune System**

Psychological factors alter immunity and disease susceptibility. Psychological variables influence immunity through direct intervention of the CNS and immunity systems or through hormonal pathways. Behavioral changes that are associated with personality characteristics or that occur as adaptation or coping responses in the face of stressful events or negative emotional states may also influence immunity (Cohen and Sheldon, 1996).

Relation between stress and immunity is sometimes attributable to behavioral factors. Depressed persons sleep less, exercise less, have power diets, smoke more, eat more and use alcohol and other drugs more often than do non-depressed persons (Grunberg and Baum, 1985; Gregory and Smeltzer, 1988).

Brown and McGill (1989) reported that after experiencing positive life events, students with low self-esteem reported lower physical well-being and used the student health centre often than those with high self-esteem.

Cohen and Herbert (1996) opined that, Stressful life events are found to alter immunity and hence susceptibility to immune system – mediated, disease. When demands imposed by events
exceed individuals abilities to cope a stress response composed of negative cognitive and emotional states is elicited. It is these responses that influence immune function through their effects on behavioral coping and neuroendocrine response.

**Negative effects of Stress on Health**

Men reporting more stress also reported more adverse health behaviors such as smoking, alcohol abuse, and lack of physical exercise, excessive food intake but disease risk associated with heightened stress was only slightly reduced when these behaviors were controlled for severe stress.

Adler and Matthews (1994) reported that individuals who experience stress may be more susceptible to disease. The evidence is strongest for cardiovascular disease, infectious diseases and pregnancy complications.

Stress also effects behaviors that in turn have effects on physiological systems. Stress can increase cigarette consumption, alcohol or food intake, drug abuse and diet. These behaviors may help decrease the tension or discomfort associated with stress temporarily, but they have negative physiological consequences and may interact with the direct effects of stress and affect subsequent coping. Thus, stress affects health behaviors; to the extent that it affects whether or not people follow medical advice. Stress may contribute to the progression of hypertension, cancer depression, asthma, obesity, cardiovascular disease, diabetes, and AIDS (Kazdin, 2000).

**STRESS, STRAIN AND OBESITY**

Recent investigations of overeating have focussed on the effect of stress manipulations that are inherently ego threatening (Polivy and Herman, 1999). This focus is based on the proposition
that threats to self-image may motivate individuals to “escape from self-awareness” (Heatherton et al., 1992). There is ample evidence to support this claim. As is supported by example, that when a stressor is ego-threatening it triggers greater consumption of food by restrained eaters than unrestrained eaters.

Bjorntorp et al. (2000) reported that stress eating in human obesity is due to perturbation of the complex systems of energy intake regulation because stress is associated mainly with central obesity activating cortisol secretion. It is of interest to look at mechanism associated with this condition. The newly discovered eating hormone, leptin, often shows diminished efficiency in obesity, which has been reported to be caused by cortisol stress related cortisol secretion in abdominal obesity may therefore be associated diminished leptin effects (“leptin resistance”), decreasing satiety, the phenomenon of stress eating is commonly experienced by obese subjects. Such overeating often occurs when the obese patient is subjected to various stressors.

Bjorntorp et al. (2000) further reported that the stress related mechanism of obesity can be better understood by distinguishing the difference between central, abdominal, visceral obesity and peripheral gluteo femoral obesity. These two forms of obesity have completely different associations to stress factors. Central obesity is often associated with psychosocial and socioeconomic handicaps and excess use of alcohol and tobacco smoking as well as traits of depression and anxiety. In contrast peripheral obesity lacks such associations. In fact, in some instances these associations are negative, suggesting that peripherally obese subjects are subjected less to such stressors than the general population.
When examining putative stress-generated obesity, one has to look into the condition of central obesity. There seems to be several possibilities at hand. First, psychosocial stressors induce eating as a confronting surrogate and socioeconomic handicaps further make it difficult to consume nutritionally correct food. Alcohol overconsumption is also associated with such handicaps; in addition to containing energy itself, alcohol tends to increase appetite (Bjorntorp et al., 2000).

Kanner et al. (1981) demonstrated that hassles were a considerably better predictor of psychological symptoms and eating problem than life events.

People who lack the ability to introspect, identify, understand and describe their feelings have difficulty distinguishing the physiological concomitants of emotion from bothersome somatic sensations and they selectively experience and report only the physiological sensations as symptoms (Lane and Schwartz, 1987). Thus children who fail to identify that they are scared, for example, may report stomach discomfort rather than recognize that they feel nervous and have “butterflies in the stomach" as a result and report more health and weight related problems.

Dick et al. (1993) found that family support, stressful life events and emotional distress, correlated significantly with alcohol use which increases appetite and contains energy use as reported by Bjorntop et al. (2000).

Stein et al. (1994) found that family changes which threaten the availability of significant attachment figures are linked to emotional and behavioral disturbance in early adolescence and personality and emotional disturbance in late adolescence and were related to eating behavior disorders.
Kaplan and Saddock (1998) reported that obese patients may be characterized as emotionally disturbed persons who because of the availability of eating cues in their environment have learned to use overeating as a means of coping with psychological problems. Many obese people report that they overeat whenever they are emotionally upset, often, soon or thereafter. Reports linking emotional factors and obesity over the long range seem more specific. Some obese people lose large amounts of weight when they fall in love and gain weight when they lose the loved ones. The habitual eating pattern of many obese people often seemed to be similar to pattern found in experimental obesity. Impaired satiety is a particularly important problem. Obese people seem inordinately susceptible to food cues in their environments, to the palatability of the food and to the inability of stop eating when food is available. They are usually susceptible to all kinds of external stimuli to eating. But they remain relatively unresponsive to the usual internal signals of hunger. Some are unable to distinguish between hunger and other kinds of dysphoria.

Kaplan and Saddock (1998) further reported that when eating disorder patients are more troubled, they tend to become disturbed in one of two directions. If they have prominent anorexic symptoms, they are likely to fit a constricted/overcontrolled profile. These patients manifest a constriction and restriction of pleasure, needs, emotions, relationships, self-knowledge, self-reflection, sexuality and depth of understanding of others that plays out in the domain of food as well. They tend to feel empty or barren inside, are chronically dysphoric and feel depressed, inadequate, anhedonic, anxious and ashamed. Their personality pathology tends to be avoidant or schizoid. The more a patient matches this profile, the
lower her level of adaptive functioning tends to be. This personality constellation may in some cases reflect in part a characterological adaptation to a history of sexual abuse.

In contrast, when patients with bulimic symptoms (with or without a history of anorexia) are more disturbed, they tend to be emotionally dysregulated, undercontrolled and impulsive. They experience intense, poorly regulated emotions and they tend to fly into rages. Rather than fleeing relationships to escape dysphoria (as is the case with the low-functioning anorexic patients), they desparately seek relationships to soothe themselves when they cannot regulate their own emotions. For these patients, eating-disordered symptoms appear to be one more instance of impulsive behavior designed to regulate poorly modulated affects.

Kaplan and Saddock (1998), further reported that several of the mentioned stressors may also be followed by physical inactivity causing obesity. However, some of the antidepressant drugs clearly promote obesity.

PERCEPTION OF MOTHER’S CHILD REARING PRACTICES
Child Rearing Practices

In the book, Forehand (1987) it is reported that one desire that virtually all mothers and fathers share– is a wish to raise a good child. But if one asks any dozen parents to define “good” he/she would get dozen different answers. While one parents would care strongly about manners and politeness – another may cite responsibility and obedience to family rules as the essence of virtue. A third parent may uphold self-control and cooperativeness as the most admirable of character traits, and a fourth may emphasize ethical conduct - qualities such as honesty, kindness and trustworthiness. But in truth good behavior is all these things and
much more. In the book, Forehand (1987) further reported that given a proper opportunity, a youngster should be able to make all these traits a part of his own character traits.

In the book, Forehand (1987) reported that child specialists describe the diverse styles of discipline practiced by modern parents in one of three ways—authoritarian, permissive and authoritative. Parents rarely use a pure form of any one of these; in fact, most mother and fathers were baffled to some degree as a result of conflicts between their upbringing and their philosophy or between their rational intentions and their emotions. All parents were also subject to moods and frustrations that distort their reactions or color their feelings at any given time. Furthermore the child’s even temperament brings modifications both in the way she accepts discipline and in the way it is administered by the parents.

According to Thompson (1965), in psychoanalytic theory, social values and controls are largely interiorized (made an integral part of child’s superego) on the basis of early parent child interactions. The foundation of children’s social attitude and skills are obviously laid in the home. Patterns of dependence-independence, ascendance - submission, cooperation - competition and conservatism - liberalism have genesis in early parent-child-interactions within the home. Affectional tendencies which are so important to psychological adjustment in adult life are dependent on the nature of parent-child-relationships.

**Parenting styles and parent adolescent relationship**

Parent-adolescent relationships have been categorized according to either parenting styles, such as authoritarian or liberal attitudes toward child rearing, or communication behaviors, such as verbal support or destruction, interruptions or supplementary
comments or integrative or distancing communications during discussions. Baumrind (1991) found differences in adolescents development between authoritative and democratic styles on the one hand and authoritarian and disinterested styles on the other. Whereas adolescents from families with a democratic or authoritative style show more pro-social and socially competent behavior, take fewer drugs and have less internalization or externalization symptoms, adolescents who have experienced authoritative or disinterested parenting styles show increased internalization or externalization symptoms, take drugs, display more antisocial behaviors and have low degree of individuation. Communication styles between parents and adolescents have been defined as being either enabling or constraining in light of different outcomes in adolescents development, such as identity formation, self-esteem, perspective-taking skills, or social competence (Hauser et al., 1991). For example, an enabling style is characterized by supportive statements, a positive and warm atmosphere of exchange and a strong intention to find a common solution. In contrast, a constraining style is characterized by distortion, devaluation of the adolescent’s statements, diffusion of meaning and the absence of a perspective about a common solution.

**Mother’s role in child’s upbringing**

According to Kazdin (2001) one effect of extreme degree of maternal attention is high preference of mother’s presence by both boys and girls in many socially difficult situations. They also reported that a favorable change in parenting has occurred with mothers of today as contrasted with their own mothers were found to be less strict, punitive and authoritarian in their child rearing attitudes. According to Thompson (1965), the mother has more
opportunities than the father to influence her offsprings’ psychological growth and behavior, as she spends more time with them. Tradition also favors the mothers’ influence since child rearing in our culture is generally recognized as a primarily the mothers’ privilege and responsibility. The father whose traditional role is to earn bread for the family, only sees his children briefly before bedtime, on Sundays and during an annual vacation. These circumstances contrast sharply with the social life of our great grandparents when children spent larger amount of time with their home bound fathers.

Numerous studies have shown that fathers and mothers treat their girls and boys differently (Copeland, 1985; Jackson, 1993; Mott, 1994; Leve and Fagot, 1997; Seigal, 1987; Starrels, 1994). Wilson (1992), found differences in children’s and mothers’ perceptions regarding the African American fathers’ socializing strategies of their girls and boys. Specifically, mothers, grandmothers, daughters and sons perceived the fathers of sons as using more controlling, demanding and supporting parental behaviors than was perceived for fathers of daughters. Fathers of sons were also perceived as more involved with their children than were fathers of daughters. Other studies showed that fathers hold more masculine gender role attitudes toward their sons and more feminine attitudes toward their daughters (Price-Bonham and Skeen, 1982). In general, fathers appeared to be more strict with their boys than were mothers and more strict with boys than they were with girls. Therefore, the effects of parental gender may be more be more apparent for boys than for girls.
FAMILY ENVIRONMENT

Family environment and family members adaptation mutually influence each other. More specifically each adult family member's personal characteristics, coping skills and well-being can effect the quality of family relationships, the family’s emphasis on personal growth goals, and the family’s focus on system maintenance. That is why when an adult in a family has a behavioral or emotional disorder the family environment is likely to be effected (Moos and Moos, 1994). Two other factors that influence the family climate: children’s personal characteristics, coping skills and well-being and acute life crisis and on-going stressors and resources from settings outside the family such as school and work. Moreover life crisis such as child’s serious physical illness, can also alter the family member’s coping skills and personal characteristics (Moos and Moos, 1994). Thus a cohesive family can affect adult’s coping skills and functioning. It can also influence children’s cognitive and emotional development, self-confidence and well-being. The family environment and influence both dysfunctional and other family member’s well-being. For example, a cohesive, well-organized family can foster an alcoholic father’s remission and his children’s adaptation.

Differences in the families communication patterns provide valuable information about the production and handling of meaning inside the family. This information provides useful clues about how children can develop. (Kazdin, 2000).

One spend’s one third of one’s life at home, with family members. Family does not only provide emotional nourishment but it also provides the environment of security. Family influences directly the development of personality by holding, communication
and differential but just reinforcement. It also influences indirectly where family members are the persons with whom the child identifies, models after, in behavioristic speech. The mirror image of self is gradually developed by viewing oneself through the eyes of family members (Kazdin, 2000).

Friction in the family that is not resolved by mutual understanding upset family homeostasis. Frictions may lead to ego-deflation, feelings of hurt, vindictiveness and irrational utterances and impulsive flare ups, parents adopting favoritism in dealing with their children. Such environment may help in germinating feelings of inadequacy in the growing up of child (Kazdin, 2000).

Mutual expression, understanding of age specific interests and changes brought about by elders help in reducing family tensions while the growing ups have to show proper regard for the elders. Quarrelsome parents provide an unhealthy model and emotionally polluted environment. Poorly adjusted family members can spoil family environment. Lack of emotional warmth, belongingness, ethical-moral and religion orientation can make growing up children weak in these areas. All members suffer from the effect of unfavorable family climate (Kazdin, 2000).

In an analysis of families with an adolescent child being seen in a child welfare agency, Reichertz and Frankel (1990) identified three main clusters of families with distinctive problems that suggested specific clinical interventions: Conflicted, underorganized, and rigid. Conflicted families contained adolescents with severe behavior problems and aggressive behavior. These families were high on conflict and control and low on cohesion, expressiveness, and independence. According to Reichertz and Frankel, initial interventions with these families
should be aimed at modifying the adolescents’ disruptive behavior, which may permit the parents to relax their control and thus reduce family conflict.

Underorganized families were relatively low on organization and control and moderate to low on most of the relationship and personal growth dimensions. These families lacked consistent about unfair discipline. The initial goal of intervention should be to develop a balanced family structure that also increases the quality of family relationships.

Rigid families were relatively cohesive but also high on achievement, moral-religious emphasis, organization, and control. These families were child-centered and predictable; however, they became vulnerable when the child reached adolescence and began to challenge parental authority. Interventions should be sensitive to these families’ strong need for structure and moral-religious orientation; the counsellor needs to strike a balance between supporting parental authority and encouraging parental authority and encouraging more flexibility as a means of helping the parents to provide the child with more independence.

This analysis shows how the FES profile, together with other information about a family, can help in planning and monitoring the outcome of specific clinical interventions.

PERCEPTION OF PARENTING, FAMILY ENVIRONMENT, HEALTH BEHAVIOR AND OBESITY

Parents are important agents of socialization training in children (Maccoby and Martin, 1983). Parent-child interactions are likely to contribute to the development of children’s relational schemas and scripts. Crick and Dodge (1994) suggested that the
origins of social cognitive heuristics involved in social information processing are likely to include past social interactions with parents.

Research into childhood aggression provides strong evidence that negative family environment, difficult child temperament and hostile biased social cognitions are repeatedly associated with aggressive behavior in children (Loeber and Stouthamer-Loeber, 1986; Crick and Dodge, 1994). Recently, researchers have begun to examine the role of latent mental structures, such as social knowledge of past negative social experiences and normative beliefs, in childhood aggression (Huesmann, 1988; Zelli et al., 1999) which in turn is related to health behavior and eating patterns.

Powers (1980) believes that resistance to changing food habits is related to child rearing practices. If food was intimately associated with warmth and loving, food comes to symbolize affection, and any change in food habits is difficult.

Family environment has also been related to the development of body fat and to obesity. Klesges et al. (1992), for example, found that the quality of family relationships was associated with the amount of body fat among preschool children. However, after the investigations controlled for initial body fat, children from more positive family situations had developed less body fat at a 1 year follow up. Gender differences were also important at this time. Greater family support may be associated with more family meals and joint activities which contribute to the girls’ eating more and the boys exercising more.

In a study by Thienemann and Steiner (1993), families of young children with eating disorders were compared to normative group. In this study, irrespective of the specific type of eating disorders, girls who were more depressed described their families
Parents play a central role in shaping a family eating environment, which provides a context for the child’s early eating experience (Birch and Fisher, 1998). Parents’ feeding attitudes and practices shape what foods the child is offered, exert control over the timing, size and social context of meals and snacks and set the emotional tone of eating occasions (Birch and Fisher, 1998). Birch et al. (1980, 1984, 1987) have found that child-feeding practices have clear effects on the child’s emerging food preferences, intake patterns and developing self-regulation of food intake. More recently evidence has been gathered linking parents’ child-feeding practices to their children’s weight status (Birch and Fisher, 1998, 2000; Johnson and Birch, 1994). Taken together, these findings stress the potential importance of parents’ child-feeding practices on their children’s food acceptance patterns and have led to hypotheses that child-feeding practices might be implicated as an environmental factor in childhood obesity (Birch and Fisher, 1998).

Kaiser et al. (2001) reported that children select foods based on their innate and learned preferences. Experimental studies show that young children learn to prefer high-fat foods due to the satiety effect they associate with those foods. In another study in which young children (4 to 7 years) were presented with a wide array of foods, they selected a diet with up to 25% of the energy as added sugars; however, when the children were told their mothers would be watching their food choices, the children selected foods lower in sugar. Parents and other adults who influence children’s food preferences by providing repeated exposure to and attention for...
sampling new food. However using bribes to encourage children to eat specific foods can adversely affect their preference for those foods.

Wardle et al. (2001) found that dietary habits aggregate within families and modeling is a one mean by which this likely occurs. Parents exert much control over their children’s food intake and are integral in forming children’s patterns of appetite and eating behavior. Attitudes toward food choices in food selection and timing of meals are in great part a result of parental modeling of behaviors. Encouraging the choice of healthful foods by role modeling without restricting intake is important to establishing healthful dietary patterns. It was further reported that higher-risk children show modestly higher preferences for the taste of fatty foods, like foods in the lowest energy-density group (vegetables) less and show stronger positive appetitive reactions to food and drink. They also show a much stronger preference for sedentary activities.

Wardle et al. (2001) further reported that these results were consistent with existing data on obese children and adults, which indicate that they tend to prefer high-fat, energy-dense foods, like vegetables less, are more responsive to food cues and more likely to overeat in negative emotional states and are more inactive. Significantly, the high risk children preferred sedentary activities and spent more time engaged in sedentary past-times, as indicated both by time spent at the TV and computer and parent ratings of activity level.

ATTITUDE TO BODY IMAGE

Body image is a multifaceted construct composed of perception, thoughts, and feelings that individuals hold about their physical being. It involves the self-perception that consists of both
perceptual experience and subjective evaluation based in part on the reactions of others. Despite its long history the construction of body image is poorly understood, probably because of its multifaceted and complex nature (Heatherton and Hebl, 1998).

The maturation of the sex organs and the changes in size, stature and proportion results in a profound change in body image. Body image is a rather nebulous entity and incorporates one’s view of himself physically, emotionally and interpersonally. Adolescence is characterized by an intense awareness of one’s body and often a painful sensitivity to even the slightest of criticism from peers although the sequence and tempo of pubertal changes may be irrelevant in terms of eventual physical development, Any deviation from one’s peers may have catastrophic and permanent effects on attitude to body image and self esteem (Powers, 1980).

Almost every physical characteristic plays some role in determining body image (e.g., genetic hair loss, facial acne, pregnancy, wrinkles, pubertal changes). Four characteristics in particular however central to the development and maintenance of the body image; the first of these factors is body weight. Individuals who are objectively or subjectively overweight tend to hold a negative body image. Such dissatisfaction is especially likely to occur among those who were overweight as adolescents. Believing oneself to be overweight, whether one is or not, is closely related to body dissatisfaction. Thus body image mediates the relationship between body weight and self esteem (Heatherton and Hebl, 1998).

Researchers typically use self report questionnaires to measure specific components of body image attitudes, such as evaluations of physical attributes, beliefs and emotional feelings about the importance of one’s appearance and behaviors to
manage one’s appearance or one’s own reactions to it. Frequently used measures for Body Image are Body Cathexis Scale, the Body Shape Questionnaire, the Multidimensional Body Self Relation Questionnaire and the Situational Inventory of Body Image Dysphoria. In this study Multidimensional Body Self Relation Questionnaire by Cash as a measure of Body Image has been used. The MBSRQ is a 69 item self report inventory for the assessment of self-attitudinal aspect of body-image construct.

The Attitude to Body image was measured by Multidimensional Body Self Relation questionnaire. It yields two dimensions, viz, Total Body Self Relation dimension and Additional Multidimensional Body Self Relation dimension. The Total Body Self Relation dimension has further seven sub-scales, viz, Appearance Evaluation, Appearance Orientation, Fitness Evaluation, Fitness Orientation, Health Evaluation, Health Orientation and Illness Orientation. Similarly, Additional Multidimensional Body Self Relation dimension has six sub-scales, viz, Body Area Satisfaction Scale , sub Weight, Fat Anxiety, Weight Consciousness, Current Diet and Eating Restraint. The Total Multidimensional Body Self Relation dimension was obtained by adding scores on Appearance Evaluation, Appearance Orientation, Fitness Evaluation, Fitness Orientation, health Evaluation and Health Orientation. Similarly, Total Multidimensional Body Self Relation was obtained by addition of scores on Fat Anxiety, Weight Consciousness.
ATTITUDE TO BODY IMAGE, GENDER AND OBESITY

Research has documented the importance of an individual’s physical attractiveness within the culture. In a classic study, Secord and Jourard (1953) found a high positive correlation between body cathexis (rating of body parts) and self cathexis (rating of aspects of the self). Attractive people are perceived to be happier, more successful, popular (Berscheid and Walster, 1974), more sensitive, kind, interesting, strong, poised, modest, sociable and outgoing than less attractive people (Dion, et.al., 1972). In addition, physical attractiveness has consistently been reported as the most important factor in a person’s desirability as a dating partner (Walster, et al., 1966; Tesser and Brodie, 1971).

Stunkard and Burt (1967) found that obese subjects likely to have a body image distortion were those with juvenile onset of obesity. Stunkard posits that disturbances in body-image originate during adolescence when obese teenagers incorporate derogatory views of peers and parents into enduring attitude of the self. It was found that obesity during adolescence is a necessary condition for a disturbed body image.

Stunkard and Mendelson (1967) initiated detailed studies of body image disturbances among the general obese population. In their first report the obese subjects were randomly selected from general medical and psychiatric clinics. These workers found that not all obese subjects had derogatory attitude towards their bodies. Furthermore, not all patients with obesity and emotional disturbances had disturbed body-image, although emotional disturbance was present in all patients who had a distorted body image. In other words emotional disturbances was a necessary but insufficient conditions for a distorted body-image.
Hammer et al. (1972) evaluated 10 obese and 10 non-obese adolescents and concluded that the obese were usually a focus of family conflict and were characterized by disturbed body-image development, low self-esteem and physical inactivity and depression.

Noles et al. (1985) found that depressed subjects were less satisfied with their bodies and saw themselves as less physically attractive than the non-depressed subjects. This confirmed Beck’s (1973, 1976) cognitive hypothesis that depressed persons negatively distort their body images. Noles et al. (1985) thus concluded that depression is not related to lower levels of observer-rated physical attractiveness. One may expect unattractive persons to be more susceptible to depression on the basis of either a social-behavioral perspective (Lewinsohn, 1974; Coyne, 1976) or a learned helplessness perspective (Seligman, 1975). Unattractive individuals not only receive less response-contingent positive reinforcement but also perceive their interpersonal environment to be less responsive to their actions and following rejection, unattractive individuals make more unstable attributions for subsequent social success (Weinberger and Cash, 1982). In addition, both Garners (1981) and Strober (1981) found that depressed anorexics exhibited a greater tendency to overestimate their body image than non-depressed anorexics. Such subjects were more vulnerable for disturbed eating habits.

Tiggeman and Pickering (1996) administered questionnaires to 94 adolescent women who reported on the quantity of time they spent watching television, the type of programs that they watched and the level of body dissatisfaction that they experienced. Drive for thinness was also assessed. It was found that the time spent
watching television did not correlate with body dissatisfaction or drive for thinness. However, the type of programs watched did: watching soap operas and movies correlated positively with body dissatisfaction, while watching sports was correlated negatively. Watching music videos was most strongly related to drive for thinness. Leon et al. (1997) pointed out that the media influences body (dis)satisfaction and dieting behavior only if family and friends reinforce the picture portrayed.

**NEGATIVE AFFECT MEASURES**

**IRRITABILITY**

Irritability represents a readiness to explode with negative affect at the slightest provocation. It includes quick temper, grouchesness, exasperation and rudeness. Assault, verbal hostility, indirect hostility and negativism are all forms of aggression, while resentment and suspicion represents hostility.

**IRRITABILITY AND OBESITY**

Watson and Pennebaker (1989) demonstrated that the disposition of negative affectivity leads to self-rating of poor health. Scherwitz et al. (1992) found that hostile individuals experience more adverse changes in coronary risk factors overtime thereby contributing to the high risk of CHD. Siegler et al. (1992) through his prospective studies with adolescents and college students found that hostility and Type A behavior predicts later smoking, alcohol use as well as higher lipid levels and body mass index. According to Cohen and Williamson (1998) persons experiencing negative affect like irritability, hostility often engaged in poor health practices such as smoking, poor eating practices, poor sleeping practices which has immunosuppressive effects and reduces their bodies ability to fight other illnesses.
Kent et al. (1997) found that degree of abnormal eating was strongly associated with measures of impulsiveness, outwardly directed irritability and anxiety in subjects. This may lead to weight imbalances.

Heatherton and Hebl (1998) reported that overweight individuals in order to reduce weight due to various reasons, particularly social pressure, and start dieting. However, continued dietary failures have harmful and permanent physiological and psychological implications. Physiologically weight loss and weight gain cycles alter metabolism and make future weight loss more difficult. Psychologically repeated failures are likely to diminish body-image satisfaction and damage self-esteem. Overtime repeated dietary failures may induce a particularly negative view of self, like helplessness, hopelessness, and anxiousness. In essence a downward spiral occurs in which dietary failure increases the perceived need for additional dieting but reduces the likelihood of future success. That is negative affect interferes with successful dietary self-regulation and yet each failure also increases negative affect.

DEPRESSION

The prevalence of depressive disorders with high economic and emotional cost and the possibility of its continuing as a major mental health problem for years to come, demand the attention of researchers as well as professionals particularly in the context of psychiatrically normal adults, adolescents and children.

It has become customary to define depression in phenomenological terms rather than its meaning (Spitzer et al., 1977). It makes sense to consider depression as disrupting a person's thinking processes, emotional reactions and day-by-day
behaviors. Schnyler (1974) suggested that depression could mean a lifestyle, a temporary reaction to some important event, an enduring symptom or feeling state, or a most serious disturbance.

Among the three approaches for depression, viz., psychoanalytic, interpersonal and cognitive one of the most influential of these theories was proposed by Beck in 1967 which studied the etiology of depression. Beck (1967) argued that all individuals possess cognitive structures called schemas that guide the ways information in the environment is attended to and interpreted. Such schemas are determined from childhood by our interactions with the external world. For example, a child who is constantly criticized may begin to believe she is worthless. She might then begin to interpret every failure experience as further evidence of her worthlessness. If this negative processing of information is not changed, it will become an enduring part of her cognitive organization, that is, a schema. When this schema is activated (e.g., by a poor grade on a test or any other failure experience), it will predispose her to depressive feelings (e.g., I am no good). Beck stated that, as a result of this faulty information processing, depressed persons demonstrate a cognitive triad of negative thoughts about themselves, the world and the future (Friedman, 1998)

MAJOR DEPRESSION

In major, or acute, depression, at least five of the symptoms listed below must occur for a period of at least two weeks and they must represent a change from previous behavior or mood. Depressed mood or loss of interest must be present (Kaplan and Saddock, 1998).
- Depressed mood on most days for most of each day. (Irritability may be prominent in children and adolescents.)
- Total or very noticeable loss of pleasure most of the time.
- Significant increases or decreases in appetite, weight, or both.
- Sleep disorders, either insomnia or excessive sleepiness, nearly every day.
- Feelings of agitation or a sense of intense slowness.
- Loss of energy and a daily sense of tiredness.
- Sense of guilt or worthlessness nearly all the time.
- Inability to concentrate occurring nearly every day.
- Recurrent thoughts of death or suicide.

In addition, other criteria must be met:
- The symptoms listed above should not follow or accompany manic episodes (such as in bipolar or other disorders).
- They should impair important normal functions (such as work or personal relationships).
- They are not caused by drugs, alcohol, or other substances.
- They are not caused by normal grief.

One long-term study found that episodes of major depression usually last about twenty weeks. Between 30% and 40% of depressed patients experience sudden attacks of anger that they describe as uncharacteristic and inappropriate (Kaplan and Saddock, 1998).

Adolescent Depression

Presentation of adolescent depression is often complex and initially not clearly part of the adult identity. Several characteristic patterns are distinguishable. For example, lowering of mood is more influenced by environment and is less fixed reflecting typical adolescent mood fluctuation. Continuities with childhood and adult
disorder however should not be overlooked (Jones, 1989). Although depressive behavior may be displayed from earlier childhood, capacity to articulate feeling of lower mood only emerges with adolescent cognitive maturity. Nevertheless, adolescents are often unwilling to talk spontaneously about deeper feelings and rather than lower mood may refer more ambiguously to a sense of emptiness or absence of feelings. Research in depression in young children has expanded (Rutter et al., 1986; Goodyer, 1992). Systematic interview schedules have also been developed and the similarity between adolescent adult depression has been confirmed (Strober et al., 1981), although puberty has modifying effects on psychological markers of depression (Puig-Antich, 1986).

MILD DEPRESSIVE EPISODES IN ADOLESCENCE

Coping with pubertal changes, separating from the family, developing intimate relationships and preparing for work may produce an unhappy demoralized state. Relinquishment of childhood gratification has to be mourned. The ending of school years and be unsettling and the new awareness of the problems facing humanity increases the emotional burden. Usually such maturational tasks are achieved comfortably with only transient mood lowering and little interference with everyday function. Some adolescents experience persistent sadness, hopelessness and apathy which interferes with performance and leads to personal suffering. Although, usually mild they may be expressions of self denigration and feelings of loneliness and hopelessness may precipitate suicidal ideas. Fear failure may be prominent such as not becoming an effective adult or making a successful sexual relationship. In the background there are likely to be behavioral problems and difficulty with school, family and peers. Adolescents
who usually adopt these ways of thinking and lack Self-esteem are more likely to become depressed when faced with reversals (Well-Connected, 2000).

**SYMPTOMS OF DEPRESSION IN CHILDREN**

According to Well-Connected (2000) report on depression the following are the symptoms of depression in children:

- Persistent sadness and/or irritability.
- Low self-esteem or feelings or worthlessness. A child may make such statements as, “I’m bad. I’m stupid. No one likes me.
- Loss of interest in previously enjoyed activities.
- Change in appetite (either increase or decrease).
- Change in sleep patterns (either increase or decrease).
- Difficulty concentrating.
- Headaches, stomachaches or other physical pains that seem to have no cause.

**DEPRESSION AND OBESITY**

Glucksman and Hirsch (1968) found that depression occurred frequently following weight loss particularly in those patients with childhood onset of obesity. In this study 15 subjects were closely followed with 10 subjects with childhood onset of obesity became increasingly sad, pessimistic and disappointed as the weight loss increased and associated rise in hostility, irritability and aggressiveness was noted.

Crisp and McGuiness (1976) in a study on 1000 patients which comprised of 35 obese subjects found that obese patients were much less anxious and much less depressed than the rest of the population. They therefore hypothesized that overeating helps to console some people, especially those who are lonely or insecure.
According to Adler and Mathews (1994) evidence of role of depression and psychological distress in the etiology of cardiovascular diseases including hypertension, elevated blood pressure, Myocardial infarction and Cardiac Death is more substantial than it is for cancers. Wasserman et al. (2000) reported that obesity was the most consistent predictor of CHD, while Power (1980) has reported that obesity and depression are related with depression being a cause of obesity in many patients.

Eating disorders and affective disorders are usually comorbid (Halmi, 1997; Wonderlich and Mitchell, 1997). Therefore a comparison of eating disorders (particularly bulimia nervosa and binge-eating disorder), affective disorders, depression and OCD reflected underlying serotonergic dysregulation. Pharmacological challenge studies in bulimic patients show a decreased serum prolactin response to both fenfluramine (Jimerson et al., 1997) and mCPP. (Levitan et al., 1997) suggesting decreased serotonergic responsivity. Tryptophan depletion in bulimic patients leads to increased food intake, weight gain and irritability (Weltzin et al., 1995).

Kaplan and Saddock (1998), reported that depression often goes hand-in-hand with other mental illnesses or disorders such as Attention Deficit Disorder and, especially in teenage girls, eating disorders and self-injury. If any of these conditions are present, they need to be treated along with the depression for treatment to be effective.

Heatherton and Hebl (1998) have reported that one of the primary cause of diet failure among subjects with disturbed body-image engaged in dietary behavior is overeating. This overeating is often precipitated by emotional distress. That is those who
chronically diet become disinhibited by emotional distress, eating much more when they are upset than they do when they are happy and calm.

OPTIMISM

The Comprehensive Dictionary of Psychology defines Optimism as “a highly general attitude or personality trait that sees good in most objects and events and expects outcomes to be favorable”.

Optimism has been described as a cognitive bias (Weinstein, 1980; Kulik and Mahler, 1987; Dember, et al., 1989), a dispositional attitude (Scheier and Carver, 1985; 1987; Staats, 1989) and as a belief (Peterson and Bossio, 1991) all of which lead an individual to overestimate their chances for positive outcomes and to underestimate one’s chances for negative outcomes across situations in one’s future. A bias, attitude, or belief has its effect by directly influencing one’s cognitive appraisal of future expectations.

Optimists are people who expect good things to happen to them: Pessimists are those who expect bad things. Folk wisdom has long held that this difference matters and contemporary research supports this assertion. Just as common sense definition of optimism and pessimism rest on expectations for the future so do scientific theories. These theories thereby link optimism and pessimism to a long tradition of expectancy – value models of motivation. The result is that the optimism concept although based in folk wisdom is also firmly grounded in decades of work on motivation and behavior (Kazdin, 2000).
OPTIMISM AND OBESITY

Optimism has been found to correlate positively with problem-focused coping, seeking social support and emphasizing positive aspects of stressful situations (Scheier et al. 1986). The level of optimism has been correlated in many studies with various health measures. An optimistic mechanism for coping has been associated with low levels of depression and anxiety and a good prognosis after myocardial infarction (Julkunen, 1996). Optimism has also been found to correlate positively with rapid recovery from coronary artery bypass surgery (Scheier et al. 1989). Optimism seems to be related to health behavior associated with better health outcomes, good eating habits and weight control (Scheier and Carver 1992, Julkunen 1996).

Unrealistic optimism pertaining to one's own risk of illness may, however, affect health-related behavior in a negative manner, leading, for instance, to disregard of the dangers of smoking (Marteau et al. 1995). Lack of optimism has predicted alcohol dependence in a study by Prescott et al. (1997). Research based on Seligman's attributional model (Colligan et al. 1994) indicated that a pessimistic explanatory style predicts increased frequency of depression, poorer physical health and lower levels of achievement. Colligan et al. (1994) also found that persons who have a pessimistic outlook were more frequent users of the medical and mental health care delivery systems.

People's behavioral responses to adversity or difficulty are important but behavior is not the only response in these situations: people also experience emotions. Difficulties elicit a mixture of feelings and optimism influences the balance among the feelings. Again, predictions are easily derived from theory. Optimists expect
to have positive outcomes, even when things are difficult. This confidence yields a more positive mix of feelings. Pessimists expect negative outcomes. This yields more intensive negative feelings—anxiety, sadness or despair (Kazdin, 2000).

Kazdin (2000) has reported that in a recent study reactions to the diagnosis of and treatment for early-stage breast cancer were examined in relation to optimism. Patients were interviewed at diagnosis, the day before surgery, 7 to 10 days after surgery and 3, 6 and 12 months later. Optimism was assessed at the time of diagnosis and was used to predict distress levels later. Optimism related to lower distress over time, beyond the effect of medical variables and beyond the effects of earlier measures of distress. Thus, optimism predicted resilience to distress through the first year following diagnosis and surgery (Kazdin, 2000). Thus it can be posited that optimistic people have better coping skills and do not indulge in destructive health related behavior.

Hollnagel et al. (2000) found that males surveyed in their studies, identified optimism, good self-esteem, job satisfaction, ability to cope with stress at work, leisure activities and relaxation with friends producing energy as their sources of health, fitness and weight regulation.

Bjorntorp, et al., (2000) report that optimistic persons experience less distress during times of adversity than pessimists. This conclusion holds for studies that are cross-sectional in nature, i.e., those that assessed optimists and distress at some appropriate baseline and then reassessed optimism later in time. The results of such prospective studies are particularly noteworthy in that they suggest that optimism is associated with beneficial changes in distress overtime. Thus these prospective studies also help get
around the potential problems of confounding optimism with subjective well-being that is inherent in the cross-sectional research. Optimists may tackle stress with problem solving than emotional distress.

Similarly, Bjorntorp et al. (2000) report that optimistic persons show signs of better physical health or signs of more adaptive physiological responses when under adversity than persons more pessimistic. Optimists report fewer physiological symptoms during times of distress and maintain a higher health status.

The concepts of optimism, explanatory style, and self-esteem appear to have promise as predictors of physical health and weight regulation.

**PSYCHOLOGICAL WELL-BEING (PWB)**

Verma and Verma (1989) defined Psychological Well-being as a subjective feeling of contentment, happiness, satisfaction with life experiences and of one's role in the world of work, sense of achievement, utility, belongingness and absence of distress, dissatisfaction or worry. Subjective Well-being (SWB) and PWB are interchangeably used terms.

To capture this element the focus is on individuals' evaluation of their lives. These evaluations can be either cognitive (e.g., life satisfaction or satisfaction with one's job) or affective (the presence of joy) (Andrews and Withey, 1976). Although these components are separable (Lucas et al. 1996), they often interrelate, suggesting the existence of a higher order construct of subjective well-being (Kozma, 1996).

Wilson (1967) reviewed the limited empirical evidence regarding the "correlates of avowed happiness". He concluded that the happy person is a "young, healthy, well-educated, well-paid,
extroverted, optimistic, worry-free, religious, married person with high self-esteem, job morale, modest aspirations, of either sex and of a wide range of intelligence”. In the thirty years since Wilson’s review, thousands of studies have been conducted and one now knows much more about the correlates of subjective emotional well-being (Diener et al., 1997).

However, in another study, Diener and Suh (1998) examined samples from 40 nations and found that although pleasant affect tended to decline with age, there were no significant trends in life satisfaction and unpleasant affect.

A number of conclusions made by Wilson (1967) have stood the test of time. Most significantly, Wilson (1967) was correct about (and probably underestimated the importance of) personality. Researchers consistently report personality traits of extraversion, neuroticism, optimism and self-esteem correlate with measures of emotional well-being (Diener et al., 1997). However, the pattern of relation may vary across cultures. Diener and Diener (1995) found that the size of the correlation between self-esteem and life satisfaction was greater in individualistic nations than in collectivistic nations, perhaps because the former place greater emphasis on autonomy and internal feelings. Lucas et al. (1998) found that extraversion was correlated less strongly with pleasant affect in collectivistic nations than in individualistic nations (though the correlation was strong in both) thus subjective Well Being is associated vicariously with health status and health practices through these four traits.
PSYCHOLOGICAL WELL-BEING AND OBESITY

Optimism is clearly associated with aspects of psychological well-being as measured by better self-esteem and lower levels of depression and situational anxiety or neuroticism (Hale et al. 1992). Optimistic people tend to see specific situations or events in a positive light whereas pessimists deny and distance themselves from events (Scheier and Carver 1992). According to the Lundby study (Cederblad et al. 1995), optimism was significantly related to positive mental health together with solution-oriented coping mechanisms, social support and Solution Oriented Coping (SOC) score. Among a sample of earthquake victims personal hopefulness predicted future morbidity as strongly as did exposure and threat experiences (Nunn, 1996). Hence optimistic attitude is likely to induce healthy eating and weight maintenance which also affects Psychological Well-being.