CHAPTER III

REVIEW OF LITERATURE

The present chapter puts forth the review of literature pertaining to inter-correlations among life satisfaction, perceived stress, happiness, optimism, humor and resilience. It also attempts to unravel gender differences in these research areas.

I. LIFE SATISFACTION AND PERCEIVED STRESS:

Life is full of stressors such as loss of job, death of loved ones, children leaving home, separation, decline in health, and ill-health, etc. These kinds of stressors adversely affect one’s life, and one has to cope with negativity to survive in a better and healthy way. Pearlin and Skaff (1996) found that sources of stress for the elderly include lack of transportation, physicians and medical care, recreational facilities and other amenities as well as financial problems. They also found that as people age, they may become "increasingly wary of the quality of their community and neighbourhood environments.

Lieberman (1978) reports that women, who report high numbers of stressful life events, experience low levels of life satisfaction whereas, women with lower levels of stress have high level of life satisfaction.

Kessler et al. (1985) found that women were more negatively affected by stressful life events that occurred to people who were close to them. Kessler et al. (1987) too, examined stressors including
financial strain, marital strain, affiliate interaction, and general life events that affect life. They found that loss of job effects health in two ways: (i) unemployment results in increased financial strain which, in turn, leads into negative health effect; and (ii) unemployment makes the individual vulnerable.

Goldman et al. (1996) studied the physical stress response in the elderly, and found that when elderly people face stressful situations, they experience loss of appetite, loss of weight, a lowered lymphocyte count and an increase in psychological distress and in serum cholesterol levels.

Gardiner (2006) found that perceived stress was negatively associated with life satisfaction, and showed that age and personality type contributed in having satisfaction. He also studied the relationship between stress and subjective well-being in relation to personality type (extroverted and neurotic). He further explored that as stress levels increase, levels of life satisfaction decrease.

Tremblay et al. (2006) examined the role of subjective vitality and the perception of stress as mediators between general life satisfaction and post-traumatic physiological and psychological health. They found that satisfaction with life positively predicted subjective vitality and negatively predicted perceived stress.

There is evidence to show the indirect effect of perceived stress on life satisfaction. For instance, studies show the adverse effects of stress on health, social ties and other related variables which can diminish life satisfaction.
For instance, House et al. (1979) stated that perceived stress is associated with ill-health, while Totman (1979) stated that greater reduction in socialization results in stressful life events.

Cohen (1991) studied the effect of stress on the immune system. They injected a number of healthy volunteers (some with common cold virus and some with an innocuous salt solution). All participants were also given a stress index based on the number of stressful events experienced in the previous year. They found that almost all the virus-injected participants showed signs of infection, but about one-third actually developed cold. Furthermore, even after controlling some factors (such as age, cigarette and alcohol use, exercise and diet), they found that higher the stress index, the more likely the participants to exhibit infection and cold symptoms.

Jones et al. (2003) has also determined the effect of stress on immune system and shown that the strategy an individual uses to cope with stress has a strong relationship with the ability of the immune system, and this strategy could also able one to alleviate the constant activation of the endocrine system, which in turn, increases the effectiveness of the immune system.

Hawkley et al. (2005) studied the impact of stress on age-related physiological capacities. These were found to be influenced not only by individual differences, but also by responses and recovery from stressful experiences.

Kaplan et al. (1977) have stated that stressful life events and consequent life changes are a result of loss of social ties and support.
Rapheal (1977) too, suggests that loss of family and friendship ties through death or separation is followed by a marked rise in physical and mental health problems.

Thus, it is evident from above that stress may affect life satisfaction directly or indirectly by affecting other variables such as physical capacities, health, social relations and the like, which in turn, affect life satisfaction.

Equivocal studies are also present in literature, which show no relations between perceived stress and life satisfaction. For instance, DeLongis et al. (1982) studied stress in 75 married couples and found that life changes are not related to stress. He administered the life events questionnaire, and Hassle and Uplift scale, and found that there was no relationship between life events and health, or between uplifts and health. Bourque and Back (1977) investigated changes in personal satisfaction over the whole life course in an ongoing longitudinal adaptation study designed to investigate the interplay between physical, psychological and social conditions. They found that anticipated events such as departure of children and change in work status had little effect on perception of emotional states.

Moreover, elderly population may not differ from younger population on perceptions of stress. For instance, Sands and Parker (1980) conducted a study on different ages of participants who were asked to rate events according to their perceived relative stressfulness. In this study, differences were not found for elderly people. However, it was found that elderly people perceived death-related events as less
stressful than did younger adults.

Despite these equivocal studies, it seems plausible that perceived stress diminishes life satisfaction. Stress is a threat to life satisfaction of the elderly, and also affects their lives negatively. The effects of stress are not to be taken lightly because some effects may result in very serious problems (such as decrease in longevity or increased health risks). If some preventive/corrective measures (such as resilience and learned optimism) are learned, the effects of stress can be reduced. Perceived stress can directly and indirectly contribute to general or specific disorder of the body and mind. It can have major impact on physical and psychological functioning. Moreover, individuals can respond differently to the same stressor. This happens because of differences in physiology and life circumstances, as well as different methods of coping which often follows through childhood to one’s whole life. People who can cope well with stress tend to believe that they can handle what happens to them. They usually make more positive statements about themselves, resist stress, and remain optimistic, resilient and happy, thereby, highlighting the role of positive affect in determining life satisfaction.

II. LIFE SATISFACTION AND POSITIVE AFFECT:

Life satisfaction can be defined as one’s desires from life and positive affect can be defined as the feelings that reflect a level of pleasurable engagement with the environment (Clark et al., 1989). Cohn et al. (2009) suggest that positive emotions predict happiness, life satisfaction, improved coping resources and desirable life
outcomes.

i) **LIFE SATISFACTION AND HAPPINESS:**

According to Lyubomirsky (2001), happy people gain benefits in many life domains from their positive state of mind, including larger social rewards, superior work outcomes (Estrada et al., 1994; Staw et al., 1995), and more activity, energy, and flow (Csikszentmihalyi & Wong, 1991).

A number of studies show that happiness indicates successful aging (Whitbourne, 1985; Baker et al., 1992). Sharma (1971) found that happiness in old age depends upon busy life, good health, having spouse, and social contacts.

Davis (1973) has shown that the applications of coping strategies can increase a person’s level of happiness, and also stated that successfully coping with a challenge increases the amount of norepinephrine released in the brain. In support to this, aerobic exercise (a coping strategy) was found to actually stimulate the output of norepinephrine by as much as four and half times normal (Howley, 1991).

Lyubomirsky (2001) found that happiness is closely related to mood and temperamental traits (extraversion and neuroticism), social relationships, purpose in life, and global life satisfaction.

Franken (1994) has shown that high levels of some neurotransmitters (specifically norepinephrine) can increase feelings of elation and euphoria (happiness) while low levels of norepinephrine have been linked to feelings of depression (unhappiness). He further
stated that high concentrations of the neurotransmitter norepinephrine lead to feelings of elation and euphoria (extreme happiness).

Sharpley and Yardley (1999) found that happier people showed less daily stress than the depressed people.

Shankar (2008) found that older Americans are generally happier than younger adults. He also found that happiness increased over time for the older people. In his study, older individuals reported more health problems but reported fewer problems overall, while young adults reported more anger, anxiety, depression, financial problems, troubled relationships and career stress.

Fordyce (1972) analyzed happiness, perceived health, social provisions, economic security and life satisfaction, and reported that happiness and past life satisfaction (even individual achievements) were found to have a direct association.

In sum, happiness can be defined as the overall enjoyment of one's life. A number of studies show that happy individuals demonstrate global satisfaction with their lives (Argyle, 1987; Diener, 1984; & Myers & Diener, 1995), and satisfaction with specific life domains such as work, education, friendship, marriage, and health (Campbell, 1981; Argyle, 1987; Eysenck, 1990; Lepper, 1996).

**ii) LIFE SATISFACTION AND OPTIMISM:**

Optimism is an outlook on life such that one maintains a view of the world as a positive place. Optimists generally believe that people and events are inherently good, so that most situations work out in
the end for the best, leading to greater life satisfaction.

Carver and Scheier (1990) opine that optimism is associated with positive outcomes whereas, pessimism is associated with greater negative outcomes. Chang et al. (1997) too, found that in young adults, optimism was associated with greater life satisfaction whereas, pessimism was found to be associated with greater depressive symptoms. A study by Chang and Sanna (2001) too, indicated that optimism and pessimism have significant direct and indirect links with depressive symptoms and life satisfaction among middle-aged adults. They also identified optimism and pessimism as important concomitants of psychological adjustment in more mature adults.

Scheier et al. (2001) found that feelings between optimists and pessimists differ. Because optimists expect good outcomes, they are likely to experience a more positive mix of feelings, and because pessimists expect bad outcomes, they experienced more negative feelings (anxiety, sadness, and despair). Their study further indicated that optimists are psychologically better adjusted than their pessimistic counterparts.

Peterson (2000) studied optimism as an inherent aspect of human nature, and showed that optimism is highly beneficial, and is linked to good mood, perseverance, achievement, and physical health.

Kohut et al. (2002) found that optimism can have an effect on a person’s immune system. In one study, elderly adults were immunized for influenza. Two weeks later, their immune response to the vaccination was measured. Greater optimism predicted greater
antibody production and better immune outcomes.

Chang et al. (1997) examined the association between appraised stress over the past month and psychological symptoms in younger and older adults. When pessimists (younger and older adults) perceived high levels of stress in their lives, they tended to experience significantly greater psychological symptoms than did optimists (younger and older adults). This finding further supported the notion that pessimism intensifies the costs associated with experiencing high levels of stress on adjustment, whereas optimism mitigates such costs in both, younger and older adult populations.

Leung et al. (2005) developed a dispositional path model of life satisfaction for community dwelling Chinese elderly living in Hong Kong and found that life satisfaction was predicted by self-esteem and relationship harmony which, in turn, were predicted by independent and interdependent self-construals. So, optimism predicted life satisfaction directly and indirectly through self-esteem and relationship harmony. Financial status mediated entirely the effect of optimism on life satisfaction; health status was predicted by optimism, but it did not predict life satisfaction.

Segerstrom (2006) argued that learning strategies that create the benefits associated with optimists were achievable. She cited evidence that optimistic people pursue their goals more doggedly, leading them to build resources through goal pursuit or effective coping with stress.

Ruthig and Larsen (1998) examined the impact of falling on subsequent physical health, negative emotions and physical activity
among 231 young-old and old-old community-dwelling adults, and the mediating effects of global perceived control and optimism. Their findings indicated that falling predicted poorer physical health, greater negative emotions and less physical activity among old-old but not young-old adults. Falling negatively predicted perceived control and optimism, which mediated the effects of falling on health and well-being among the old-old group. Findings have implications for enhancing recovery from falling via bolstering perceived control and optimism.

Baldwin et al. (2010) examined psychological resources (of ego resilience and dispositional optimism) and found that geographical location and resilience was negatively correlated with distress, and positively correlated with optimism. Dispositional optimism was negatively correlated with levels of psychological distress. African American seniors who resided in the north reported significantly less distress than those in the south. They further reported that resiliency and optimism buffer stress among older African-Americans.

Inspite of these studies which show the relation between life satisfaction and optimism, some evidence exists to show that the two may not be correlated. For instance, Benyamini and Roziner (2008) studied dispositional optimism and pessimism from negative and positive affectivity in the prediction of older adults’ well-being. The findings suggest that for community samples of older adults and for measures of general well-being, dispositional optimism is redundant with measures of negative/positive affectivity. Similar results were
reported from young samples (Smith et al., 1989).

Despite these equivocal findings, the meritorious effects of optimistic thinking and explanatory styles on life satisfaction cannot be overlooked. In fact, studies indicate the way in which optimism buffers the effect of stress, and promotes diverse outcomes in the elderly.

Apart from examining the relations of life satisfaction with perceived stress, happiness and optimism, it was postulated to examine its links with humor and resilience too. This has been dealt with below.

iii) **LIFE SATISFACTION AND HUMOR:**

A sense of humor is good for individuals, both physically and psychologically. It not only provides better perspectives on problems, but also frequently offers relief from perceived stress. Humor appears to buffer the negative effects of stress (Abel, 1998). Furthermore, research reveals that a good sense of humor is related to muscle relaxation, control of pain and discomfort, positive mood states, and overall psychological health including a healthy self-concept (Labbott et al., 1990; Hudak et al., 1991; Deaner & McConatha, 1993; Martin et al., 1993; Kuiper et al., 1995; Thorson et al., 1997). The positive effects of humor can be explained by the role of humor in the cognitive appraisal which reduces the effect of stress.

McCrae and Costa’s (1986) sample of community adults ranging from 21 to 90 years of age ranked the ability to find humor in stressful situations as a highly effective coping mechanism for solving problems
and reducing distress associated with stressful life events.

Rim (1986) found that family size is a factor related to the use of the sense of humor as a coping device. He also emphasized that family size was associated with humor styles. He further found significant relationships between measures of humor and defense mechanisms, such as minimization (looking on the bright side of things) and reversal (trying to find something funny in a distressing situation).

Lauer et al. (1990) conducted a study on 100 couples who had been married forty-five years or more. The variables identified by couples as important to their marriages were: being married to someone they liked as a person and enjoyed being with; commitment to the spouse and to marriage; a sense of humor; and consensus on various matters such as aims and goals in life, friends, and decision making. Husbands and wives were strikingly similar in their responses; thus, men and women perceived the same variables to be critical in the success of long-term marriages.

Krokoff (1991) suggested that coping with humor was beneficial for intimate relationships by demonstrating its relationship to enhanced marriage satisfaction and reduced job distress among married couples.

Fry (1995) examined the influence of sense of humor on cognitive appraisal of stress and coping styles in a pilot study of female executives. The results suggested that women with a better sense of humor were more capable at cognitive restructuring and reappraising stressful life events in more positive ways; women with a good sense of
humor also attempted to find meaning in the stressful events and perceived stressful events as challenging to their personal growth by anticipating some gain from the experiences.

Keltner and Bonanno (1997) found that people who frequently experience humor reported less mood disturbance to stressful life events than less-prone individuals.

Thorson et al. (1997) identified humor as a means of coping with critical life problems. They also found that some people are more successful than others in adapting to serious loss in later life and a sense of humor was correlated with positive adaptation with age.

Hampes (2001) demonstrated that humor was correlated with close interpersonal relationships as well as reducing stress. He also found that humorous individuals had positive and satisfying interpersonal relationships.

Celso et al. (2003) examined the relationships between humor coping, health status, and life satisfaction among older residents of assisted living facilities. The relationships between health status and humor coping, and health status and life satisfaction were statistically significant. Both, the direct association of humor coping on life satisfaction and the intervening role between health status and life satisfaction were not supported. Humor as a coping strategy seems to be available to older adults who are in better health.

Ong et al. (2004) studied the use of humor in old women and found that those who experienced daily positive emotions and use sense of humor had less bereavement stress, anxiety and depression.
They also concluded that when positive emotions occur, the effect of daily stress and depressive symptoms are weakened.

Richman (2007) studied humor related to death anxiety and wishes, and aging that emerged during psychotherapy with elderly patients and found that humor as a therapy can bring elderly together, and help them affirm life and laugh at anxiety, depression, and their problems in living.

Thus, research provides evidence that a sense of humor may be viewed as a multi-dimensional positive personality characteristic with a number of facilitative effects. These include stress reduction (Abel, 1998) and positive enhancement (Labbolt et al., 1990; Abel, 1998).

So, in sum, it can be said that the ability to consistently apply humor to stressful events is a skill in which proficiency is gained through awareness, knowledge and practice because humor is a communicative phenomenon that represents a multi-disciplinary research field that enhances positive aspects of life.

**iv) LIFE SATISFACTION AND RESILIENCE:**

In line with the paradigm of positive psychology, the construct of resilience comes under the spotlight when one considers the possible role it plays in reducing the effects of perceived stress in the lives of the elderly. Resilience is the ability to bounce back from negative events by using positive emotions to cope (Block & Kremen, 1996; Lazarus, 1993). It is the power to cope with change and adapt to challenges or adversity.

Adversity may occur as manmade disasters (such as war,
poverty, etc.) or natural disasters (such as earthquakes, hurricane, food, etc.) in daily life conditions (such as loss of job, illness, death of loved ones, etc.). These conditions of life, in turn, lead to stress which tends to lead to a breakdown very quickly. Coping with stress or change is however, a part of living and one has to adapt these changes to survive in a better way. The answer to this lies in resilience. Resilience helps to overcome day-to-day stressors and move towards opportunities. Coping with stress is a part of living, but how one beholds stressful life events and moves on is the basis of the resilience framework (Flach, 1988).

Masten and Coatsworth (1998) found that resilient people are healthier, live longer, are more successful in school and work, happier in relationships, and less prone to depression. Other studies also show that resilient people are healthier, live longer, are more successful in jobs, happier in relationships, and less depressed (Seligman, 1991; Werner & Smith, 2001). Rutter (1999) too, found that resilient people tend to regain their equilibrium faster, maintain a higher level of productivity, are physically and emotionally healthier and emerge stronger than before.

Luthar and Cushing (1999) asserted that the underlying constructs in all definitions are that of risk (or adversity associated with adjustment problems) and the likelihood of adapting positively to that adversity.

Luthar et al. (2000) argued that resilience is not a static state, but can fluctuate as changes during the lifespan see the emergence of
new vulnerabilities and strengths, and that resilience can be achieved at any point in the life cycle.

Kaplan (2002) describes resilience as the ability to view life's events as a challenge. He further suggests that resilient individuals are more likely to use adaptive coping strategies and are therefore, more likely to engage in health-promoting behaviours.

Connor and Davidson (2003) consider resilience to embody personal qualities that enable individuals to thrive despite adversity.

Charney (2004) too, found that resilience promotes adaptation to stressful environment by physiological and psychological response.

Tugade and Fredrickson (2004) have found that resilient individuals "bounce back" from stressful experiences quickly and effectively. They further found that resilient people use positive emotions to rebound from stress, and find positive meaning in stressful situations.

Newman (2005) has suggested that building resilience is a personalized process, and that one individual's strategy for building resilience may be different from that of others. Bonnano (2004) too, suggests that there are multiple pathways to resilience.

Connor and Zhang (2006) found that resilience varies with context, time, age, gender, and cultural origin, and is modifiable. In addition, individuals may display resilience in some areas of functioning (such as work), but not in others (relationships).

Harris (2008) found that resilience is possible for many older adults regardless of social and cultural backgrounds, or physical and
cognitive impairments, unlike successful aging. He also discussed the concept of resilience from a theoretical resilience framework, applied this term to a dementia population by providing two in-depth case studies of resilience among people with Alzheimer’s disease, and concluded by advocating that the resilience paradigm should advent more front and center into the gerontological debate on successful aging.

So, the findings regarding resilience in the field of positive psychology shed light on the idea that resilience can promote life satisfaction of the elderly.

Apart from examining the association of life satisfaction with perceived stress and positive affect variables, another objective was to examine the relations of perceived stress with happiness, optimism, humor and resilience, which have been dealt with below.

III. PERCEIVED STRESS AND POSITIVE AFFECT:

Perceived stress negatively affects one’s life, while positive affect helps one to buffer against stress (Folkman & Moskowitz, 2000). Positive and negative emotions have distinct and complementary adaptive functions and physiological effects. While negative emotions are associated with specific action tendencies that focus and narrow thoughts and actions (to prepare the body for fight or flight), positive emotions should broaden one’s thoughts and actions, and by consequence, build important personal resources (Fredrickson, 1998; 2001). So, positive emotions are useful in counteracting negative emotional experiences, and broadening thoughts and actions
In addition to the psychological benefits of positive affect, evidence exists to indicate the physiological effects of positive affect too. For instance, research shows that people, who are able to regain and maintain positive emotional states, are less likely to get sick or to use medical services when faced with stressful life experiences (Catanzaro & Greenwood, 1994; Goldman et al., 1996). Steptoe et al. (2005) found that positive affect reduced inflammatory responses to stress.

So, it can be said that positive emotions are important facilitators of adaptive coping and adjustment to stress (Folkman & Moskowitz, 2000) and restore further coping efforts (Lazarus et al., 1980). In the present research, four resources/strengths inculcating positive affect have been considered, viz., happiness, optimism, humor and resilience. The relations of perceived stress with happiness, optimism, humor and resilience have been explained below.

i) Perceived Stress and Happiness:

Happiness is a positive enduring state that consists of positive feelings, and our positive feelings protect the individual from stress. Folkman and Lazarus (1985) have found that happiness involves successful resolution to encounter stressful event. Happy people tend to be more cheerful, and focus on positive aspects in any situation and life, in general. Therefore, their positive affect would help in reducing the deleterious effects of stress. There is a probability that they would perceive stress as less taxing and are more likely to re-appraise the
situation more favourably. Therefore, it is expected that happiness would lead to lesser perceived stress.

ii) Perceived Stress and Optimism:

Optimism is a great motivator to prevent stress. Optimists use different strategies to cope than pessimists, and these coping differences contribute to positive association between optimists and better adjustment (Scheier et al., 1986; Carver et al., 1989; Stanton & Snyder, 1993). Aspinwall and Taylor (1992) have found that optimistic individuals have lower levels of perceived stress. This relationship has also been found by Segerstrom et al. (1998). Sitz and Poche (2009) investigated the relationship between optimism and perceived stress. They found that females would exhibit higher levels of optimism and also lower levels of perceived stress. However, there was not a strong relationship between gender and optimism or perceived stress. Baldwin et al. (2010) conducted a study on elderly people and examined psychological resources (of ego resilience and dispositional optimism) and found that geographical location and resilience were negatively correlated with distress, and positively correlated with optimism. Dispositional optimism was negatively correlated with levels of psychological distress. African American seniors who resided in the north reported significantly less distress than those in the south. They further reported that resiliency and optimism buffer stress among older African-Americans.
iii) Perceived Stress and Humor:

Humor plays an important role in reducing stress. Sense of humor helps a person in effectively coping with negative effects of stress (Martin & Lefcourt, 1983). Martin and Dobbin (1988) have noted that humor can moderate the immune suppressive effects of stress. Furthermore, people who use humor to cope with stressful situations report greater daily positive mood (Dillon et al., 1985; Lefcourt, 2001). Consequently, in response to stress, those with greater propensities to cope with humor show increases in levels of salivary immunoglobulin A (S-IgA), a vital immune system protein, which is the body’s first line of defense against respiratory illnesses (Dillon et al., 1985). Thorson et al. (1997) have identified humor as a coping strategy with critical life problems. Hampes (2001) has found that individuals with high sense of humor are satisfied with interpersonal relationships. So, by using humor in stressful situations, one can adapt better to stress.

iv) Perceived Stress and Resilience:

In our daily life, we face many stressful situations and cope with them by our evaluation of the situation. One of the approaches that we adopt is resilience. The origins of resilience are found in two areas of literature, viz., physiological dimensions of stress (Larzarus, 1991) and psychological coping (Miller et al., 2000). Psychological resilience has a primary role in reducing the physiological effects which occur due to stressful events (Charney, 2004).

Resilience emerged as a major research topic from the studies of
children of schizophrenic mothers too. In the 1980’s, Masten (1989) showed that children of a schizophrenic parent may not obtain comforting caregiving compared to children with healthy parents, and such a situation had a significant impact on children’s development. However, some children of ill parents thrived well and were competent in academic achievement, and researchers made efforts to understand such responses to adversity. The roots of research on resilience can be found in Warner’s (1993) research on children born into poverty who faced difficult life circumstances. In these conditions, they not only faced problems but also flourished.

So, resilience is the ability to bounce back from negative events or adversity. Cognitive response to adversity makes the person aware towards challenge, and one’s control and active engagement ensure one’s adaptation (Wagnild, 2003).

In relation to psychological dimensions of coping, resilience includes a particular approach towards stress that is recognised as cognitive appraisal skills (Lazarus & Folkman, 1984). To illustrate this, the cognitive roots of resilience can be seen in cognitive-behavioural theory (Beck, 1976) and social learning theory (Bandura, 1977). Cognitive-behavioural theory emphasizes that one’s behaviour is determined by one’s cognitive construction of the world, and this cognitive construction may promote or inhibit adaptation to stressful events (Beck, 1976). So, it can be said that resilience is influenced by the perception of situations and experiences. On the other hand, social learning theory postulates that much learning is observational.
It considers cognitive processes as agents of behaviour, and also focuses on learning by modelling and learning that occurs within a social context (Bandura, 1977). This theory opines that human behaviour is the result of reciprocal interaction between cognitive, behavioural and environmental influences. Moreover, adaptation is dependent on an individual’s goals and experiences (Bandura, 1977).

In sum, it may be said that when stress occurs, appraisal takes place. By using resilience, individuals cope with stressful experiences quickly and effectively (Tugade & Fredrickson, 2004). So, resilience is a flexible and resourceful adaptation to external and internal stressors (Klohnen, 1996), and can help in reducing stress.

Another objective of the present research was to examine the inter-relations among happiness, optimism, humor and resilience, which have been explained below.

**IV. INTER-CORRELATIONS AMONG HAPPINESS, OPTIMISM, HUMOR AND RESILIENCE:**

Fredrickson's 'broaden–and–build' theory of positive emotions proposes that the experience of positive affect broadens cognitive process and builds resources which later lead to resilience (Fredrickson, 2001). There is evidence to indicate that positive affect predicts resilience to adversity (Fredrickson et al., 2003) and increases happiness (Fredrickson & Joiner, 2002). Miller and Kelley (2005) too, remarked that positive affect is linked to happiness, subjective well-being, optimism, and life satisfaction (Argyle & Hills, 2002;
Let us analyze these associations among happiness, optimism, humor and resilience.

i) **Happiness and Optimism:**

Optimism, the ability to look on the bright side when things go wrong, is a big key to a happy life according to several major studies in positive psychology. Learned optimism can increase one’s level of happiness and success. Optimistic people are more likely to find creative solutions. Thus, optimism is one of the keys to happiness. Scheier et al. (2001) found that optimists and pessimists differ on feelings. Because optimists expect good outcomes, they are likely to experience a more positive mix of feelings. On the other hand, pessimists expect bad outcomes; therefore, they experience more negative feelings (anxiety, sadness, and despair). This study further indicates that optimists are psychologically better adjusted than their pessimistic counterparts. Penedo et al. (2003) evaluated relations among optimism, perceived stress management skills (PSMS), and positive mood in participants with surgical treatment for localized prostate cancer and found that optimism, PSMS, and positive mood scores are positively correlated, and also suggested that the relationship between optimism and positive mood may be mediated by the belief in being able to use stress management techniques effectively.

Ildan (2006) proposes that happiness is the twin sister of optimism and the twin brother of contentment. Cohen (2002) too, proposes that optimistic enchantment with life is a part of childhood,
and may be a key to happiness and health.

Holahan et al. (2008) examined the role of positive expectancies in enhancing happiness and found a small decline in happiness over time. They also found that the general level of happiness was moderately high, with a large majority of respondents relatively happy into later aging. Moreover, they found that positive expectancies predicted greater happiness in the elderly.

Segerstrom and Sephton (2010) found that optimism was associated with increased positive affect. They further found that optimists are generally happier with their lives than pessimists.

The effects of optimism and happiness are evidenced by recent findings which indicate that older people tend to be somewhat happier than younger people (Diener & Suh, 1998; Roberts & Chapman, 2000; Charles et al., 2001). Specifically, both cross-sectional and longitudinal work has shown that older persons report higher life satisfaction and lower negative affect. Although these main effects do not always emerge, these are observed frequently enough to suggest that greater happiness can indeed be achieved over time.

So, it can be said that the ability to maintain an optimum level of happiness would involve an individual’s ability to see life optimistically.

**ii) Happiness and Humor:**

Humor and happiness are effective in reducing anxiety and stress, and enhance communication in medical settings. Lund et al. (2009) found that most of the bereaved spouses rated humor and
happiness as being very important in their daily lives, and they were also experiencing these emotions at higher levels than expected. Experiencing humor, laughter and happiness was strongly associated with favorable bereavement adjustments regardless of the extent to which the bereaved person valued having these positive emotions.

Tse et al. (2010) too, have found that humor therapy relieves chronic pain, and enhances happiness and life satisfaction. Baca et al. (1999) have also found a positive and significant relation between humor, happiness and life satisfaction.

iii) **Happiness and Resilience:**

Resilience is the capacity to withstand stress, and happiness is an emotional state reflecting positive feelings. A number of studies have examined the relationship between *positive emotions and resilience*. Multiple methodologies (e.g., self-report, observation and longitudinal studies) demonstrate that resilient individuals are characterized by positive emotionality. They have an energetic approach to life, and are curious and open to new experiences (Werner & Smith, 1992; Klohnen, 1996; Masten, 2001). Resilient individuals use positive emotions to achieve effective outcomes such as humor (Werner & Smith, 1992; Masten, 2001), creative exploration (Cohler, 1987), relaxation (Anthony, 1987) and optimistic thinking (Masten & Reed, 2002).

Fredrickson (2001) found that cultivating daily positive emotions can help build resilience and increase one’s happiness. She also found that happiness increases life satisfaction by building resilience. She
stated that “sweet small moments let positive emotions blossom, and that helps one become more open. That openness then helps one to build resources that can help one to rebound better from adversity and stress, ward off depression and continue to grow.”

Cohn et al. (2009) suggested that resilience mediates the relation between positive emotions and increased life satisfaction. They further suggested that happy people become more satisfied not simply because they feel better, but because they develop resources for living well.

iv) Optimism and Humor:

A little humor can brighten one’s outlook, and optimism can fuel humor. Britt (2005) found that perfectionism, humor, and optimism moderate the deleterious effects of daily hassles on self-esteem, burnout and physical health. He further found that humor is directly linked to optimism.

In similar vein, Fry (1995) also found that humor and optimism moderate the effects of daily hassles on self-esteem and physical health.

Lauer (1990) conducted a study on 100 couples who had been married forty-five years or more. The variables identified by couples as important to their marriages were: being married to someone they liked as a person and enjoyed being with; commitment to the spouse and to marriage; a sense of humor; and consensus on various matters such as aims and goals in life, friends, and decision making. Husbands and wives were strikingly similar in their responses; thus,
men and women perceived the same variables to be critical in the success of long-term marriages.

So, humor and optimism play a beneficial role in relieving stress and maintaining one's satisfaction with life.

v) Optimism and Resilience:

Resilience is the ability to cope with adversity, and optimism is the ability to think positively about any event. Both help one to deal with stress. Optimists are more resilient and bounce back faster from failures. Vaillant (2007) mentioned that optimism is an important internal resource of resilience. Kumpfer (1999) too, found that optimistic thinking makes a person resilient. Seligman (1991) has proposed that optimists are resilient and therefore, achieve success in life. They have better health and may even live longer. Klohnen (1996) found that resilient individuals have an optimistic, zestful and energetic approach to life, are curious and open to new experiences, and are characterized by high positive emotionality. Resilience comes from how optimists explain adversity to themselves. This, in turn, makes them emerge strongly in life.

vi) Humor and Resilience:

Resilience fosters a sense of humor (Bernard, 1991). Werner and Smith (1992) found that resilient people frequently use humor as a coping strategy, which has been shown to help people cope effectively with stressful circumstances (Martin & Lefcourt, 1983). There is evidence that resilient people proactively cultivate their positive
emotionality by strategically eliciting positive emotions through the use of humor (Werner & Smith, 1992).

Masten and Coatsworth (1998) found that resilient people are healthier, live longer, more successful in school and work, happier in relationships and less prone to depression. Other studies also show that resilient people are healthier, live longer, are more successful in jobs, happier in relationships, and less depressed (Seligman, 1991; Werner & Smith, 2001). Rutter (1999) too, found that resilient people tend to regain their equilibrium faster, maintain a higher level of productivity, are physically and emotionally healthier and emerge stronger than before.

Thus, in the words of Newman (2005), it may be concluded that building resilience is a personalized process, and that one individual’s strategy for building resilience may be different from others. Bonnano (2004) too, suggests that there are multiple pathways to resilience.

In sum, it may be said that happiness, optimism, humor and resilience are positive conditions and great motivators. Happiness, being a primary condition, can lead to humor and optimism. So, happiness would reinforce optimism and humor in a person. On the other hand, optimism would make an individual see the positive aspects of his/her life, and would promote happiness and humor.

So, positive affect associated with protective psychosocial factors such as resilience and adaptive coping responses can help one in reducing the negative effects of perceived stress thereby, leading to adequate life satisfaction in the elderly.
Apart from examining the associations of life satisfaction with perceived stress and positive strengths, another pertinent aspect of this study was to examine gender differences in the elderly on the above-mentioned variables. This has been dealt with below.

V. GENDER DIFFERENCES IN LIFE SATISFACTION:

A number of studies have reported that life satisfaction does not vary by gender (Andrews & Withey, 1976; Campbell et al., 1976; Diener & Diener, 1995). On the other hand, some researchers have found that women use more social resources in the prediction of life satisfaction than men (Diener & Fujita, 1995; Gibson et al., 1997), while Plagnol and Easterlin (2008) have found that men are more satisfied with their financial status and family than women. They have found that there are no major differences in the judgments about life satisfaction among males and females, but they may rely on different resources in the evaluation of their life satisfaction.

Diener and Fujita (1995) found that social resources (i.e., family, friends, and social services) are predictive of life satisfaction for both, men and women, but they are more predictive of life satisfaction for women. Perhaps 18 women’s roles as the conservators of contact with friends and family - both a blessing and a burden - lead to their relatively greater reliance on social support. By contrast, factors that may be more relevant to men’s personal goals, such as athleticism, influential connections and authority, were found to be related to life satisfaction for men, but not for women.

A meta-analysis of the predictors of life satisfaction in the elderly
conducted by Martin. Pinquart and Sorensen (2000) found additional support for the assertion that men and women derive satisfaction from different sources. In their study, life satisfaction was more highly related to income for men than for women. The authors hypothesized that because men are more socialized to draw their sense of identity from work and income, they tend to look to income as a barometer of their success and satisfaction with their life.

Equivocal studies are also present in literature which indicates that women show more life satisfaction than men. For instance, Gropel (2001) found that women scored higher than men in emotional well-being as well as in life satisfaction.

In sum, it may be said that the review of literature indicates that elderly men and women may be, by and large, more similar on life satisfaction, though they may access different resources to derive the same.

VI. GENDER DIFFERENCES IN PERCEIVED STRESS:

Russo et al. (1985) found that females had significantly higher scores than males on such perceived stressors as isolation in the school environment, faculty hostility, administrative obstacles, and expectations about enduring the demanding role of the physician. Females also reported more symptoms of depression in response to stressors involving the school environment.

Grimby and Agneta (1997) studied psychological reaction and health-related quality of life in relation to stressful life events, and found that women had more stress-related problems than men do.
Cyranowski et al. (2000) proposed that women are more likely to be negatively affected by interpersonal events than men a tentative factor underlying the emergence of gender differences in stress.

Utsey et al. (2002) indicated that elderly African American men and women differed significantly with regard to institutional and collective racism-related stress. They further found that institutional racism-related stress was a significant predictor of psychological health in this sample of elderly African Americans.

Kajantie and Phillips (2006) assessed gender differences in stress reactivity, and primarily relied on measuring physiological responses to acute stressors in laboratory settings, including activities of the hypothalamic-pituitary-adrenal (HPA) axis (e.g., cortisol) and sympathetic nervous system (e.g., heart rate and blood pressure). A general trend has emerged suggesting greater acute HPA and autonomic responses in adult men compared to adult women using standard performance-related psychosocial stressors such as public speaking and arithmetic tasks. This greater sympathoadrenal responsiveness in males may be reasonably associated with the pathogenesis of cardiovascular disease, aggression and immune suppression (Lundberg, 2005). In women, the phase of menstrual cycle, menopausal status and pregnancy were found to have marked effects on physiological stress responses. In particular, estrogen has been shown to buffer the sympathetic and HPA arousal (Goldstein et al., 2005).

Wang et al. (2007) studied gender differences in neural response
to psychological stress, and found that stress in men was associated with cerebral blood flow (CBF) that increases in the right prefrontal cortex (RPFC) and CBF reduction in the left orbitofrontal cortex. In contrast, stress in women primarily activated the limbic system. He further suggested that there was a small degree of overlap between the stress networks in men and women.

Equivocal findings are also present in this field which indicate the lack of gender differences on stress. For instance, Sitz and Poche (2009) found that there was no strong relationship between gender and perceived stress.

Thus, it can be concluded from the above review that women seem to report more stress in comparison to men.

**VII. GENDER DIFFERENCES IN POSITIVE AFFECT:**

The review of literature on positive affect and its resources generally indicates that men report greater positive affect resources/strengths than women. Some of the studies supporting this have been given below.

Watson (1930) reported that men perceived themselves to be happier than women. Veenhoven (1984) also reported similar results that elderly men are happier than elderly women. Taylor et al. (2007) found evidence for the fact that older men (aged 50 and above) were a bit more optimistic than older women. Daniel et al. (2010) too, examined gender differences and found that males were more optimistic than females. They further stated that men are more optimistic about the lives of their children and the future than women.
On the other hand, Hardy et al. (2004) found that older men were more resilient than older women.

Groch (1974) found that males appreciate sexual and aggressive humor more than females. Males, in comparison to females, were also found to produce significantly funnier captions to stimuli containing sexual and aggressive themes, but not neutral themes (Brodzinsky & Rubien, 1976).

Cupchik and Leventhal (1974) found that males showed more independence between their overt, public expression of humor appreciation (mirth) and their private, evaluative response to humor stimuli (funniness ratings) as compared to females.

Hey (2000) found that men are more likely to tell jokes, and women are described as more likely to laugh at humor.

Thorson and Powell (1996) examined the correlations of personality traits and sense of humor with age and gender, and found that although aging women use humor to cope with stressors more often than men, the latter are more likely to be the creators of humor than the former.

Some equivocal studies are also available in this field. For instance, Nolen-Hoeksema and Rusting (1999) found that women show greater happiness than men do. Sitz and Poche (2009) investigated the relationship between optimism and perceived stress. They found that there was no strong relationship between gender and optimism or perceived stress. In another study investigating resilience and health outcomes in the elderly, older women scored higher on
resilience than did older men (Caltabiano & Caltabiano, 2006).

In sum, it may be said that women are generally found to report more mood disturbances than men. Due to personal and socio-cultural factors, elderly women are particularly in a disadvantageous position than elderly men. Consequently, it was proposed that elderly men would demonstrate higher levels of happiness, optimism, humor and resilience in comparison to elderly females.

**HYPOTHESES:**

On the basis of the review of literature, the following hypotheses were formulated in the present investigation:

1. Life satisfaction would be negatively related with perceived stress.
2. Life satisfaction would be positively related with happiness, optimism, humor and resilience.
3. Perceived stress would be negatively related with happiness, optimism, humor and resilience.
4. Happiness would be positively related with optimism, humor and resilience.
5. Optimism would be positively related with humor and resilience.
6. Humor would be positively related with resilience.
7. There would be no differences between elderly males and females on life satisfaction.
8. Elderly women would report more perceived stress than elderly men, while the latter would report higher levels of happiness, optimism, humor and resilience.