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CHAPTER TWO

REVIEW OF

RELATED LITERATURE

MENTAL HEALTH AND STRESSFUL LIFE EVENTS
MENTAL HEALTH AND ADJUSTMENT
MENTAL HEALTH AND SOCIAL SUPPORT
MENTAL HEALTH / RELATED MEASURES AND
PERSONAL DEMOGRAPHIC FACTORS
The present chapter provides a brief review of available studies on mental health and related measures in relation to life event stress, adjustment and social support.

**Mental Health and Stressful Life Events**

The stressful events as causes of illness have a long tradition in human history. In contemporary societies, stresses of one or the other kind have become a common source of threat to mental and physical health and well-being of the people. They have become characteristic features of modern life. This situation has emerged in the context of unprecedented technological change, accompanied by industrialisation and increasing attraction to consciousness as an average urban person has become a constant struggle with pressures, conflicts and limits. The stresses are continuously worked and escape from them has become impossible. These developments have made stress a central phenomenon of interest to the students of many
disciplines namely medicine, psychology, sociology, and anthropology. (Ramalingaswami, 1990) While the context and sources of stress have been studied by different disciplines at different levels, its analysis remained the major concern of psychologists. As a result in the last few decades the nature and dynamics of stress and health have received considerable attention by psychologists around the globe.

The possible influence on social support and stress on well-being (health) and health behaviour has attracted the interest of psychologists, sociologists, anthropologists, and other public health professionals having different perspectives and orientations. (Adler and Mathews, 1994; Beehr and McGrath, 1992; Cohen and Syme, 1985; Sarason, Sarason and Pierce, 1990; Veiel and Baumann, 1992)

How chronic stresses and daily hassles affect the emotional well being of individual has been subject of serious study during the 2nd half of the 20th century. The relationship between life stress and illness onset has been demonstrated by many investigators. (Green Jr. et al, 1956; Fischer et al, 1962; Hawkins et al, 1957; Kjaer, 1959; Rahe et al, 1970; Smith, 1962; Weiss et al, 1957) Individual's perception of life events as problematic for social readjustment also seems to cause illness. (Ramamurti, 1996)
The early phase of stress research had a characteristic emphasis on the prediction of illness rates from knowledge of stressful life events. The role of social environments (Brown and Harris, 1978; Dohrenwend and Egri, 1979; Kruez et al, 1972; and Paykel et al, 1969) and socio-cultural change as stressful and thus precipitating physiological and mental disorders has been stressed in a number of studies. Life events such as change in socio-economic status (Cassel, 1966), change in occupation (House, 1981; Cohen and McKay, 1984) and loss of job (Kasl et al, 1968) have been implicated as illness producing stressors. Johnos et al, (1993) have suggested that many rural elderly experience high levels of stress and strains due to life events and show poor health.

Death of loved ones is found as a stressful event precipitating cause leading to diseases. (Renner and Birren, 1980) Evidences are also indicate relationship between somatic symptoms, depression and life events in elderly males and females. Depression was found to be the most significant factor in the development of somatic complaints. Studies by Rozzine (1996), Schulz and Williamson (1993), Smallegan (1989), Ramamurti (1996), Ramamurti and Jamuna (1984, 1992) reveal that life events are important co-factors in defining well-being of the elderly.
In a significant study Curtis, Groarke, Coughlan and Gsel (2004) examined the extent to which psychological stress, social support and clinical disease indicators predict physical, social and psychological well being in patients with rheumatoid arthritis. The results revealed that higher perceived stress and lower social support did associate with poor emotional adjustment. While social support did not mediate the relationship between psychological stress and adjustment, the use of venting emotions as a coping strategy was a mediator of the association between stress and negative affect. Perceived stress was found as a better predictor of positive and negative emotionality.

Stress is referred as one of the discomforting responses of a person in a particular situation. Stress research indicates that stress experienced as a result of major life events will have a significant impact on physical and psychological health of the elderly, when coupled with functional decline a person's perceptions of the life event became negative and leads to disease and disorders in later life.

A host of studies have suggested a positive relationship between stressful life events and subsequent illness. (Wolf, 1950; Schmale, 1972; Holmes and Rahe, 1967; Grant et al., 1974) A similar though less consistent relationship between the onset of psychiatric illness and life events has been reported. (Brown and Birley, 1968;
Eisler and Polak, 1971; Uhlenhuth and Paykel, 1972; Patrick et al., 1978; Hudgen, 1974; Paykel, 1974)

In the case of elderly women the onset of middle and old age is likely to bring with it several stresses and strains. Age related physical changes and the resulting psychological disturbances may lead to greater maladjustment and mental health problems in the aged people. (Indira and Murthy, 1980a, 1980b; Jaiprakash and Murthy, 1981, 1982; Rangaswamy et al., 1982; Jamuna, 1984)

Mental Health and Adjustment

In Ancient India old age is considered a time for moving towards higher goals of self realisation and wisdom. This philosophy which practiced prepared the aged for a calm, and peaceful period of life. However, in Modern India old age is increasingly being perceived as a period of liability and problem.

Adjustment is the ability to adapt to the changing roles, structures and operations in the environment. The search for understanding successful adjustment in old age has lead to a significant body of work within the fields of psycho-social gerontology. These works points out that successful adaptation to the aging process involves the ability to maintain a consistent view of the
self overtime and to adjust to the changes brought about by the process of aging. It is accepted that adjustment to old age reflects multidimensional influences of biological, psychological and social processes that have operated through the persons' life course. (Whitbourne and Cassidy, 1996) According to Lehner and Kube (1964) and Coleman (1956) adjustment is a continuous process of interaction between ourselves and our environment and it is the effectiveness of an individual's efforts to meet his/her needs.

Adjustment in the aged is a relatively well researched area in psycho-social gerontology. Aging brings about changes not only in physical appearance and functioning, but also in psychological functions and social roles. Old people have to adjust to several loss, loss of physical vigour, loss of job due to retirement (Desai and Naik, 1969), loss of a spouse and often, loss of social states and economic stability due to retirement. Change in roles and lowered status are found to cause distress in old age and adjustment is found to decrease with age. (Paintal, 1991; Shirolkar and Prakash, 1996) Studies show that non-working older people report more adjustment problems than those who have a job or are capable of working. (Jayashree and Rao, 1991; Singh, Singh and Dawra, 1983) Adjustment in old age is correlated with education, occupation, income and social class.
(Anantharaman, 1979) and health is found as a best predictor of life satisfaction of the aged. (Hosmath et al, 1993; Prakash, 1992; 1995; 1997; Ramamurti, 1996)

In a study conducted among 150 women retirees Dhillon and Singh (2005) examined the role of health, social support, leisure activities and stress on adjustment. Analysis showed health, social support, leisure activities and experienced stress as contributing significantly to their adjustment. The findings suggested that probably participation in leisure activities and social support from colleagues, friends and family enhances both physical and mental health which in turn buffer the effect of experienced stress and thereby promotes better adjustment.

Life dissatisfaction is a crucial factor leading to poor mental health in the elderly persons. Life dissatisfaction is the internal feeling of unhappiness which results from several deleterious changes associated with old age such as reduced income due to retirement, loss of meaningful roles, reduced social status, abundant leisure time without suitable avenues for spending time, poor social interaction and compromised quality of life, widowhood and dependence increase the vulnerability of women to mental health problems.
Depression, lower life satisfaction and higher psychological distress are more among elderly women.

Ott (2003) found complicated grief in the spousal bereavement process as associated with an increase in mental and physical health problems. Those with complicated grief experienced more additional life stressors, perceived less social support and achieved less clinically significant improvement than those with non-complicated grief.

It is estimated that there are nearly 4 million severely mentally ill among the aged in India, yielding a mental morbidity rate of 89/1000 as compared with 263/1000 in the limited kingdom. There is a prevalence of affective disorders and genetic depression. Increased agitation and restlessness, rarity of ideas on guilt and sin, higher frequency of somatic and paranoid symptomatology are also reported among elderly by Rao (1991). Self destructive and suicide behaviour are common in the elderly. (Rao, 1997) Khandelwal, Ahuja and Gupta (1992) reported behavioural problems such as stealing, delusions of abandonment, delusions of infidelity, suspicion, wandering and aggressiveness in the aged.

Vulnerability of the elderly to mental health problems results from psychosocial factors as much as from biochemical and
morphological changes in the aging brain. A significant finding, having sociological implication, is the high rate of morbidity in the widowed persons. Eswaramoorthy (1991) found adjustment of rural aged as affected by insecurity caused by widowhood. Jamuna (1994) points out that loss of spouse in wound brings about feeling of isolated and low socio-economic status and this in turn causes stress. Women experience more economic and health problems which may be responsible for their poor adjustment. It is observed that predominance of unfavourable events is likely to lead to psychiatric symptoms.

Mental Health and Social Support

Evidence accumulated from a good number of research argues that social support influences mental health and well being of the elderly persons. It seems that general positive feelings from close and important others are likely to promote overall well-being. In the face of specific crisis or events, specific types of support from specific others are likely to be most effective resources.

Substantial evidence has accumulated over the years indicating that people who have larger social networks, more social supports are
better integrated into the social fiber of their community and are less likely to die prematurely. (Antonucci, Sherman and Akiyama, 1996)

Impressive research has documented the association of individual's evaluation, perception of, or satisfaction with, the relationships to mental health. While some studies indicate that size of the network is the best predictor of well being and mental health, other evidence suggests that although objective measures such as social network characteristics are useful, the most predictive measures are those that assesses the individual's subjective evaluation of the social relationships. Studies conducted among American and French elderly representative population indicate that although both objective and subjective measures of support are significantly related to depressive symptomatology, subjective measures, such as satisfaction with the quality of the relationship, have a greater inhibiting effect on depression than more objective measures, such as number of social ties. (Akiyama, Antonucci and Campbell, 1990; Antonucci, 1994; and Antonucci, Fuhrer and Jackson, 1990)

Additional evidence suggests that family and friends may function quite differently, although both play an important role in the well-being of the elderly. Family relationships, under normal circumstances, make an important contribution to well-being. When
conflict is minimal and normal positive relationships are maintained. Under these conditions older people report relatively stable levels of well-being. When such relationships either do not exist or are conflictual, a negative impact on well-being is usually evident. Another long standing finding is that friend, but not family, relations have significant positive effects on the mental health of the elderly. (Johnson and Troll, 1994; Antonucci and Jackson, 1987 and Lee and Sheban, 1989)

In their study, Berkman (1984), Cohen and Willis (1985), Cohen and Syme (1985) reported that social support mediates the effects of life stress on health and well being. Chadha and Kanwara (1998) have also ascertained the effect of social support on the mental of elderly. In their study of institutionalised and non-institutionalised elderly, the authors report that non-institutionalised elderly seem to get more social support and hence are found less depressive and lonely compared to their institutionalised counterparts.

It is proposed that social relations with non family peers are critical and that the confident relationships array may be more important to the quality of life and well being than the quantity of interaction with either family or friends. (Chappell, 1991) Role of social network relates in enhancing well being of the elderly has been
confirmed by a number of earlier studies also. (Chadha and Mangla, 1991; Kahn and Antonucci, 1980)

Research evidence show that presence or absence of family support affects general well being in old age. Institutionalised elderly are found to experience a lower sense of general well being. When compared to those who live with family lack of family support, and poor quality of life are found to lead to mental health problems in the elderly. (Ara, 1997; Arora and Chadha, 1995) Women who are forced to live in old age homes seem to suffer great distress in terms of poor health, more emotional problems, low self conception and less social interaction than older women living with families. (Patel and Kamala, 1995)

There is a dearth of empirical research done in India on relationship of the aged beyond their family. While the core of a person's network will be his/her family. One can assume that there will be important relationships with neighbours, co-workers, friends and various others within the social world of older Indians. Chadha, Aggrawal and Mangala (1990) in a study examined the problems of the elderly using network approach. They concluded that family and friends provide support that are associated with positive changes among older individuals. The elderly who are retired, widowed and
belonging to rural areas, scheduled castes and low socio-economic status constitute the most vulnerable section of the aged population to face mental health, physical health problems and social isolation. (Prakash, 1987)

Significance of family support as a crucial factor for the better psychological well being of elderly is emphasized by Pinto and Prakash (1991) also support networks enable the old person to relate to others in community where they live. (Chadha, 1990; Jamuna, 1987; 1991; Ramamurthi, 1991; 1992; Ramamurthi and Jamuna, 1990; 1992 and 1993)

Cropley and Steptoe (2005) in a study examined whether functional social support buffers the effects of chronic and recent life stresses as physical symptom reporting in men and women and assessed whether perception of support remain stable over time. It was concluded that social support moderates the impact of recent but not chronic life stress on physical symptoms reporting.

Research on social support has shown that supportive relationships are associated with lower illness rates, faster recovery rates and higher levels of health care behaviour. (McIntosh and Shifflett, 1984) Studies on gender differences agree that differences
exist in the social networks and social worlds of men and women. Women have broader social ranges than men (Powers and Bultena, 1976; Antonucci, 1985; Kahn and Antonucci, 1983 and Kohen, 1983) and they turn more to their intimate ties in times of need than men (Powers and Bultena, 1976 and Antonucci, 1985). Women also seem to have larger social networks (Arling, 1987; Depner and Ingersoll, 1982), more frequent social contacts (Antonucci, 1985; Arling, 1987 and Chatters et al, 1985) and greater number of close relationships than men (Depner and Ingersoll, 1982). It is also reported that gender differences in social support are conditional on the events that cause men and women to seek out support. (Krause and Keith, 1989) This leads to the assumption that there is likely to have differences between elderly men and women with respect to the quality of support they receive and its effects and their mental health.

Family, friends and colleagues can help to prevent illness by providing affection and approval, confidence and encouragement, information and advance. Taken together, the benefits that others provide to us in facing the challenges of life are called social support. Social support is particularly necessary in times of stress and crisis. For example Gore (1980) in a study of men who had lost their jobs
found less illness, lower cholesterol levels and loss depression among those men who had supportive marriages and friendships.

Antonucci and Akiyamma (1987) suggested that social relationship in the context of individual, family, and societal development have both a buffering and main effect on well being depending up on situational and developmental characteristics of life episodes.

Social support helps people cope with stress in two ways:

(1) Friends can provide emotional support by helping us to understand and interpret potentially stressful situations in ways that are less threatening. They can help us to relax, to maintain a sense of humour, and to feel more optimistic about the future.

(2) Supportive others can provide information and encouragement that helps us to behave in healthier ways such as to stay on diet or to stay away from cigarettes.

Aging takes place within a social context. At each phase of human cycle, the individual belongs to a variety of kinship and social groups. The extent to which an older person is enmeshed within a social network of kin, friends and neighbours will greatly affect their
experience of aging. This is a critical issue in gerontology that needs to be studied with the changing demographics in our country from public, state and personal levels. Optimisation of the role of informal social supports from family, friends, and neighbours has thus emerged as an important social and public priority.

Antonelli, Rubini and Fossone (2000) in their study, institutionalised and non-institutionalised people show that the institutionalised elderly have mere negative self concept, lower levels of self esteem and restricted interpersonal self as compared to non-institutionalised.

Barrett (1999) examined the role of social support (measured as presence of a confident perceived social support, and frequency of formal interaction) in determining life satisfaction among the never married. Results indicate that age moderates the effect of marital status on social support. In the analysis of life satisfaction, marital status and social support are found to be significant predictors.

Baxter et al. (1998) studied the demographic and social network factors associations with perceived quality of life in a sample of rural Hispanic and non-Hispanic white elderly. The findings suggest that
network size and contact are important social factors that can improve
the quality of life for both ethnic groups.

Bowling (1994) studied the implications of social networks and
supports among older people and their implications for emotional
well being and psychiatric morbidity. The study contents that there is
fairly strong empirical evidence of relationship between social-
support, network structure and health status mortality and risk of
entry into institutional care.

Heidrich et al. (1993) investigated how the self-system mediates
for physical health and mental health among the elderly. It was found
that social integration and social comparisons mediated the effects of
physical health and psychological health.

Johnson et al. (1992) studied the families and social networks of
150 adults (85 years and above) using both structured and open ended
questions to determine the extent to which the family functions as a
source of support for the oldest old. Subjects with children were
significantly more active. 30 per cent of the childless and unmarried
were not active providers of support.

Gray and Calsyn (1989) studied 70 subjects (60 + ages) on social
support and disengagement and activity theory. The results indicated
that stress has more of a negative impact on the life satisfaction of those under age 75 years than those over 75 years, social support has more of a positive effect on life satisfaction in those under 75 than those over 75 of age, and the buffering effect of social support is stronger in the under 75 age group. The analysis supported the first two hypotheses but the third one did not find any significant support.

Conner et al (1979) found that both number and frequency of social ties were unrelated to life satisfaction although kin and children play a central role in the support network of elderly family availability and interaction exhibit little relation to subjective well being.

Blazer and Kaplan (1983) conducted a study to assess social support in elderly community population. The results indicate that role and attachments, frequency of interactions and perception of social network each predicted a change in self-care capacity, i.e., activities of daily living.

According to Shyam and Yadav (2005) life satisfaction of the aged is determined by social and financial support as well as activities of daily living.

Social involvement promote adequate psychological functioning that help individuals face life crises. Many studies in aging emphasize
that interaction with others is important in optimal adjustment. (Neugarten, Havighurst and Tobin, 1961; Maddox, 1963) Social support contributes to well being by meeting the basic needs for affiliation and attachment (Robinson and Garber, 1995) and lessons the distress associates with negative life events (Heller and Swindle, 1983; Kessler and McLeod, 1985; Kessler, Price and Wortman, 1985; Mitchell, Billings and Moos, 1982; Thoits, 1982). Beneficial effects of social support on mental and physical health have been reported by Curtona, Russel and Ross (1986), Subrahmanian and Asha (1991), Fokkema (2002) and Anna and Asha (2006).

Baum and Buxley (1984) compared differences in perceived age and death anxiety in 301 elderly persons for community affiliated, community alienated and institutionalised. It was found that single subjects were poorer in emotional health and had more death anxiety whereas community affiliated ones showed lesser death anxiety.

Chopra and Anand (2001) found that people living in families as compared to old age homes when measured on psychological and social aspects were better. Family residents were fully engaged in social activities and well connected with kith and kin. They had a positive outlook to life and power to fight against the odds.
The review of studies conducted in India and abroad demonstrates that social support network is a key variable in the area of geriatric studies. Provision for social support seems to influence nearly all the aspects of elderly's lives.

Chadha and Kanwara (1998) compared institutionalised and non-institutionalised elderly and found significant differences on social support, depression, and loneliness. The study also returned negative and significant correlation between social support and loneliness.

Chadha and Nagpal (1991) conducted a study to find out differences, if any, between institutionalised and non-institutionalised subjects with respect to social support network and life satisfaction. The results of the study indicate that, social network size of institutionalised group is significantly smaller than their non-institutionalised counterparts; non-institutionalised elderly have higher life satisfaction as compared to the institutionalised; and that social support and life satisfaction are significantly related to each other; males being significantly higher than females.

Kaur and Kaur (1987) carried out a study in Hissar on 60 males, aged 55 years and above. The study revealed that the social support
network of the aged is a major contributor to their general sense of well being in spite of the age related problems.

Desai and Naik (1969) conducted a comprehensive study and found that family support solves health and financial problems adequately. The younger member of the family perceive the need of family support and provide for them. The researchers however do not print a rosy picture of the aged and stressed that family patterns in India are changing.

The association among sources of social support, life events and psychiatric morbidity has been examined by Vaananen, Vahtera, Pintti and Kivimaki (2005). They report that low support from one's partner, co-workers and supervisor is positively related with psychiatric morbidity. The support of friends seems to lower the risk of psychiatric morbidity after death or severe illness in the family and after interpersonal conflict. High post-event network heterogeneity also lowers the risk of psychiatric morbidity after financial difficulty.

In another study by Li, Liang, Toler and Gu (2005) have examined the effects of gender and pre-bereavement social support from three different sources namely, spouse, adult children and friends, on widowhood adjustment among older adults in China.
Multiple regression analysis suggests widowhood as having a negative mental health consequences for older Chinese. Social support from older children seems to buffer the deleterious effect of widowhood, whereas spousal support during the marriage increases one's vulnerability. Support from friends, however, do not appear to have a significant effect.

Giles et al. (2005) examined social networks with children, relatives, friends and confidents predict survival in older Australians over 10 years after controlling for a range of demographic, health and life style variables. The study revealed a smaller effect of greater networks with confidents. The effects of social networks with children and relatives were not significant with respect to survival over the following decade. It was also reported that survival time of the elderly may be enhanced by strong social network.

**Mental Health / Related Measures and Personal Demographic Variables**

In one of the first major studies by the ICMR on the "Problems of the Aged Seeking Psychiatric Help", it was observed that 43% of the study group suffered from depressive illness, while the prevalence of mental morbidity was observed to be 59 per 1000. In a larger population based study conducted under the ICMR on "Health care of
the rural aged", the prevalence rate of mental morbidity was observed to be 89/1000. This rate of prevalence of mental morbidity in older people is much more when compared to the meta-analysis using 15 epidemiological studies, which calculated the prevalence of mental morbidity to be 73/1000 in the total population. In a study of a community near Chennai, the prevalence rate of mental morbidity in those aged 50 and above was found to be 349 per 1000. In the Severe Mental Morbidity Survey undertaken by the ICMR, it was estimated that a total of 1.2 million elderly were suffering from mental illnesses. In a study on "Gero-Psychiatric Morbidity" conducted by ICMR in Uttar Pradesh, Psychiatric Morbidity was found to be 42.4% in the geriatric group as compared to 3.97% in the non-geriatric group.

Documented research suggests the role of a variety of socio-personal factors in causing higher morbidity and mortality in the aged population.

According to Blazer (2003) depression is the most frequent cause of emotional suffering in later life and it significantly decreases quality of life in older adults. Psychological well being in older adults is also related to factors such as age, education, marriage, race and subjective health. (Levin, 1994)
Hossain (2004) in his study of elderly population in Bangladesh reported that for elucidating and predicting the aged characteristics, age and sex patterns, labour force participation, marital status, retirement age, home for elderly and social support are key factors in aged characteristics.

Jamuna, Lalitha and Ramamurti (2004) in a significant study examined the impact of widowhood on their psychosocial status. They reported that onset of widowhood for most of the older widows, leads to development of psychosocial problems and low self-esteem. The study indicated that the socio-economic status, age, and psychological health were the significant contributants to self-esteem of widows.

Patel (2003) studied the effect of institutionalised living on death anxiety and psychological well being of elderly. The results revealed that institutionalised living did not have any significant impact on death anxiety among elderly people. The institutionalised aged experienced poor sense of psychological well being than non-institutionalised aged. A significant negative correlation was observed between death anxiety and psychological well-being.

Sangeeta (2002) in her study on the Life Satisfaction and Values in Retired Women confirmed that well-adjusted retired women
emphasized values based on 'Personal Growth' as centrality of life satisfaction. Post-retirement work status was not a significant variable in determining the life satisfaction since both groups comprising working and non-working retired women emphasized close relationships and spiritual awareness as the dimensions of adjustment and life style activity. It is concluded that life satisfaction in retired people is a function of close family ties focus on spiritual growth, physical well being and involvement in greater number of social activities.

Srivastava and Sweta (2002) in their study on 'Effect of Living Arrangement and Gender Differences on Emotional Status and Self-Esteem of Older Aged Persons' confirmed the effect of living arrangement and gender differences on emotional states and self-esteem of old aged people. The results indicate that emotional states like anxiety, depression and guilt are more in old people living in institutions/ashrams. Living away from their children, family and relatives, economic insecurity, establishing living conditions or a sense of lost youth and approaching death are the major cause of emotional states in old institutionalised people. Gender differences were also found in this study. Old aged females suffer more from stress, depression, guilt and extraversion feelings. Findings also reveal that
the living arrangement of the aged was significantly related with the self-esteem of these subjects.

Mental health advantage of marriage had been confirmed in the study conducted by Strohschein, McDonough, Monette and Shao (2005). The study also reports that short term effects of moving into and out of marriage on psychological distress are similar for men and women.

The literature on subjective well-being among the elderly population assumes importance considering the fact that it encompasses the life time approach. In spite of the fact that lack of consensus on the definition of the underlying construct of well being has certainly proved to be a hindrance, a few researchers have attempted to explore well being, as a requisite of mental health.

Chen and Silverstein (2000) explored the relationship between intergenerational, 3039 older Chinese parents - findings revealed that providing instrumental social support to children and satisfaction with children directly improved elder parent's well-being. Well-being in late life is also significantly influenced by several externally generated factors such as social resources, income and negative life events. (Fry, 2000)
Gee (2000) examined role of living arrangements in quality of life in community dwelling elders. 830 persons were interviewed on three dimensions of quality of life-satisfaction, well-being, and social support, for living alone, with spouse, and intergenerational. Findings highlighted the importance of living arrangement and quality of life. Few differences were found for married persons but for widows especially females; quality of life went down significantly with decreasing support.

A longitudinal study conducted among older Australian women of the age 70+ (Lee and Russell, 2003) revealed the effects of physical activity on their emotional well being. It is reported that higher levels of physical activity associates with higher scores on emotional well being. Those who had made transition from some physical activity to none generally show more negative changes in emotional well being than those who had always been sedentary while those who maintained or adopted physical activity have shown better outcomes.

According to Oliver, Kolt and Schofield (2006) participation in regular, moderate, intensity, physical activity is related to a multitude of physical and psychological health benefits in older adults. Kalavar and Jamuna (2006) point out that older adults who are physically active have lower morbidity and mortality rates than inactive adults.
In a study on leisure time activities and adjustment among elderly, Asha (2001) reports that leisure activity participation facilitates home, health, self and general adjustment of the elderly people.

The effects of leisure time activities on life satisfaction in the pre-retirement and post-retirement periods for males and females was examined by Bharadwaj and Chadha (2005). The results revealed significant positive correlation between leisure time activities and life satisfaction. Ramamurti (1991) found self acceptance, self perception of health, self rating of ability in activities of daily living, belief in after death and karma philosophy is contributing to life satisfaction of the elderly. Gender is reported to play a significant role in life satisfaction by Chadha (1991).

Leitner and Leitner (2005) also point out that effective use of leisure time has a great impact on the physical and mental health of the individuals.

Chadha (1989) studied the impact of institutionalisation on the psychological well-being. It was found that older people in institutions as compared to others are worse on psychological well-being and their depression level is high as compared to non-institutionalised older persons.
Impact of income, education, religion, family size, location of living etc. on problems of elderly women has been examined in a large number of studies. (Agnihotri, 1976; Atchley, 1976; Paintal, 1979; Ramamurti, 1970; Anantharaman, 1979, 1980; Kessler and Cleary, 1980; Oja, 1984) Sex is reported as having significant effect on elderly's adjustment and elderly males are found as experiencing more health problems, emotional and social problems than elderly females. It is also found that locality of living is not significantly related to elderly women's emotional and health problems as well as problems at home. However, rural elderly women are found to experience more problems of social adjustment than the urban elderly women. (Asha and Subrahmanian, 1990)