REVIEW
OF
LITERATURE
CHAPTER 3

REVIEW OF LITERATURE

3.1 Theories of Ageing

3.2 Biological, Social and Psychological Dimensions of Ageing
   3.2.1 Biological and Health Status of Elderly
   3.2.2 Social Status of Elderly
   3.2.3 Psychological Dimension of Ageing

3.3 Care and Support for the Aged
   3.3.1 Cultural Changes and Care for elderly
   3.3.2 Living Arrangements
   3.3.3 Adjustments to living arrangements.

3.4 Institutions for the support of the elderly
   3.4.1 Home Based and Institutionalized Aged People
   3.4.2 Old Age Homes

3.5 Psychological Wellbeing

3.6 Intervention Research in Social Work

3.7 Need for Intervention Study among the Institutionalized Elderly

3.8 Intervention Researches in the Field of Elderly
   3.8.1 Intervention Study in the field of Physical Health
   3.8.2 Intervention Study in the field of Psychological Health
INTRODUCTION

A review of the conceptual and empirical literature, relevant and related to topic is studied. The review of literature is intended to develop familiarity with the area of study and to discover the already known and attempted studies in the field of the study. The researcher is examining the available sources that deal with the previous and recent practices in social work and case work practice worldwide, with a purpose of gaining greater understanding of the crucial aspects of the problem under study.

The review of literature is designed in the following way:

3.1 Theories of Ageing

The theories can be examined in various viewpoints. All these theories supported the different aspects of Ageing.

3.1.1 Biological Theories of Ageing
3.1.1.1 Genetic Theories
3.1.1.2 Non Genetic Theories
3.1.2 Physiological Theories of Ageing
3.1.2.1 Stress Theory
3.1.2.2 Immunological Theory
3.1.2.3 Homeostatic Theory
3.1.3 Social Theories of Ageing
3.1.3.1 Disengagement theories
3.1.3.2 Activity Theory
3.1.3.3 Continuity Theory
3.1.3.4 Other Social Theories
3.1.3.4.1 Labeling theory
3.1.3.4.2 Social reconstruction
3.1.3.4.3 Role theory
3.1.3.4.4 Modernization theory
3.1.3.4.5 Subculture theory
3.1.3.4.6 Social exchange theory
3.1.3.4.7 Ecological perspective
3.1.3.4.8 Time, age and aging concepts
3.1.3.4.9 The Life course perceptive
3.1.3.4.10 The political economy of ageing
3.1.3.4.11 Cumulative advantage and disadvantage
3.1.3.4.12 Feminist theories
3.1.3.4.13 Moral economy of ageing
3.1.3.4.14 Post structuralist perspective theory of ageing
3.1.3.4.15 Theories emphasizing a sense of meaning
3.1.3.4.16 Phenomenology of ageing

3.1.4 Psychological Theories of Ageing.
3.1.4.1 Life span development

3.2 Biological, Social and Psychological Dimensions of Ageing
The studies in the field of Biological, Social and Psychological Dimensions are discussed in this part of the chapter.
3.2.1 Biological and Health Status of Elderly
3.2.2 Social Status of Elderly
3.2.3 Psychological Dimension of Ageing

3.3 Care and Support for the Aged
The next part of the chapter dealt with the care and support available for the aged and also the studies related to their adjustments to the living arrangements.
3.3.1 Cultural Changes and Care for elderly
3.3.2 Living Arrangements
3.3.3 Adjustments to living arrangements.

3.4 Institutions for the support of the elderly
The part dealt with the home and institution based aged people.

3.5 Psychological Wellbeing
This part of the chapter review of literature dealt with the psychological wellbeing and the dimensions of the same.
3.6 Intervention Research in Social Work
The intervention studies forms a vital part of the Social Work Research.

3.7 Need For Intervention Study Among The Institutionalized Elderly
The need for the intervention study in the field of Geriatric Social Work is examined with the support of the literature.

3.8 Intervention Researches in the Field of Elderly Care
The social work intervention research across the globe is examined.

3.1 THEORIES OF AGEING
The study of ageing is a multidisciplinary attempt. Each discipline brings its own theories, models and concepts to explain aspects of ageing. There are numerous theories of ageing, each based on some aspect of the whole process Strehler (1977) states that any theory of ageing must meet the three criteria: (1) The ageing phenomenon being considered must be evident universally in all members of a given species; (2) The process must be progressive over time; and (3) The process must be detrimental in nature, leading ultimately to the failure of the organ or system. (Strehler, 1977)

3.1.1 Biological Theories of Ageing
Biological theories explain physiologic process and structural alterations in living organisms that determine developmental changes, longevity and death. Though numerous theories of biologic aspects of ageing have been formulated and tested, no theory has produced an effective explanation of the various ageing processes. (Kumar & Prasad, 1996) Biological theories can be broadly classified into: 1) Genetic theories, and 2) Non genetic theories.

3.1.1.1 Genetic Theories
The DNA molecules of the individual determine the life span of any species. Thus the programme in the DNA determines the pattern of changes in the body as it grows older. (Burdman, 1986). The following are some of the well known genetic theories on ageing.
3.1.1.1 DNA Damage Theory (Cellular Genetic Theories)

This theory deals with breaks in the chain of DNA molecule, which results in the inability of the cell to manufacture essential enzymes. This would result ultimately in the death of the cell. This declining of cells is a sign that senescence occurs at the cellular level (Hayflick, 1980)

3.1.1.2 Somatic Mutation Theory

The proponents of this theory hold that the ageing of cells in the senescent human is the result of an accumulation of chromosomal aberrations, also known as ‘somatic mutation’ (Burdman, 1986). According to this theory, exposure to radiation shortens life span. Thus the more exposure to radiation accelerates ageing.

3.1.1.3 Error Theory

The error theory suggests that ageing and death are the results of errors in the synthesis of proteins. It explains ageing in terms of alterations in information in DNA and RNA. The damages to RNA and DNA accumulates over time, which results in the synthesis of the enzymes and finally results in the decrease in protein synthesis to the point of failure.

3.1.1.2 Non Genetic Theories

Non genetic theories presume that with passage of time, changes take place in molecules and structural elements of cells which impair their effectiveness (Shock, 1977). Some of the important non genetic theories are:

3.1.1.2.1 Wear And Tear Theory

This theory assumes the living organisms as machines. According to this view, ageing is the result of the gradual deterioration of the various organs necessary for life. Ageing is a programmed process, and that cells are continuously wearing out. Basic metabolic process of the cells produces waste products that accumulate till they reach a critical level and cause a decrease in functioning.

3.1.1.2.2 Accumulation Theory

This theory is also known as ‘Clinker’ theory. The theory views ageing in terms of accumulation of damaging substances like lipofuscin, histones and free radicals within the cells of various tissues of the body with advancing age (Burdman, 1986). The presence of these particles in one’s body resulted in the malfunctioning of the tissues which results in the cell death.
3.1.2.3 **Free Radical Theory**

Free radical theory focuses on the damaging effects of free radicals (Harman, 1968). The damaging effects of the formation of free radicals cause the death of cells and ageing. Free radicals are highly unstable chemical fragments produced during normal metabolism. These fragments readily react with and may damage other molecules. Free radicals exist only for very brief periods, one second or even less and may also cause mutation of chromosomes, thereby damaging normal genetic mechanisms.

3.1.2.4 **Cross Linkage Theory**

This theory is proposed by Bjorksten (1975). The theory considered that ageing results from an accumulation of cross-links in proteins. The theory states that irreversible ageing of proteins like collagen is responsible for the ultimate failure of tissues and organs. Formation of cross-links results in the well-known loss of elasticity with advancing age in many tissues of the body. Due to this, skin texture changes and results in reduced ability to stretch and flex. (Bjorksten, 1975)

3.1.2 **Physiological Theories**

Physiological theories of ageing explain ageing either in terms of a breakdown in the performance of a 'single organ system' or in terms of impairments in 'physiological control systems'. The deterioration of certain organ systems like the cardiovascular system, the thyroid gland, the gonades, the pituitary gland, sex glands, etc., can lead to ageing which is commonly termed as “single organ system hypotheses” (Shock, 1977). Some of the theories that come under this category are:

3.1.2.1 **Stress Theory**

Selye (1966) proposed that ageing is due to the accumulation, over time, of the effects of stresses of living. The basic assumption of this theory is that there is always residual damage, which persists and accumulates. (Selye, 1966)

3.1.2.2 **Immunological Theory**

Immunological function regulates genetic control of longevity. Ageing has a significant impact on the capabilities of the Immune System. The Immune System is designed to protect the living organisms both by generating antibodies, which react with foreign organisms, proteins, etc., and by the formation of special cells, which
Review of Literature

engulf and digest foreign cells and substances. Therefore, changes in immune functions include an increasing failure to react appropriately to foreign agents or organisms (non-self) and a tendency to react against the body's own tissues (self). The antibodies produced by an aged immune system may be faulty.

3.1.2.3 Homeostatic Imbalance Theory

Comfort (1964) proposed that the efficiency of important homeostatic mechanisms that maintains vital physiologic balances in the organism is unique in the process of ageing. It follows that ageing is characteristically an increase in homeostatic faults. (Comfort, 1964)

3.1.3 Social Theories of Ageing

Social scientists have developed a number of theories relevant to ageing and adjustment. The three major theoretical formulations that attempted to explain psychological adjustment to ageing are: 1) Disengagement Theory, 2) Activity theory, and (3) Continuity theory.

3.1.3.1 Disengagement Theory

The disengagement theory of aging states that "aging is an inevitable, mutual withdrawal or disengagement, resulting in decreased interaction between the aging person and others in the social system he belongs to". The theory claims that it is natural and acceptable for older adults to withdraw from society. The theory was formulated by Cumming and Henry in 1961 in the book Growing Old, and it was the first theory of aging that social scientists developed. Thus, this theory has historical significance in gerontology. Since then, it has faced strong criticism since the theory was proposed as innate, universal, and unidirectional. The disengagement theory is one of three major psychosocial theories which describe how people develop in old age.

The theory disregards personality differences in predicting the level of social role activity and life satisfaction (Neugarten, Havinghurst, & Tobin, 1968). The theory is also criticized on logical grounds. The nature of the theory itself provides an 'escape clause' and to measure disengagement invokes practical difficulties.

Disengagement cannot be seen as a unitary process when infact there are different types of disengagement, such as social disengagement and psychological disengagement and one may occur without the other. The theory also does not take into consideration the cultural and socio-economic factors (Rose, 1964)
3.1.3.2 Activity Theory

The roots of activity theory were traced to studies reported by (Cavien, 1949) and (Havinghurst & Albrecht, 1953)

The activity theory, also known as the implicit theory of aging, normal theory of aging, and lay theory of aging, proposes that successful aging occurs when older adults stay active and maintain social interactions. It takes the view that the ageing process is delayed and the quality of life is enhanced when old people remain socially active. The activity theory rose in opposing response to the disengagement theory. The theory was developed by Robert J. Havighurst in 1961.

The theory assumes that a positive relationship between activity and life satisfaction. One author suggests that activity enables older adults adjust to retirement and is named “the busy ethic”.

The critics of the activity theory state that it overlooks inequalities in health and economics that hinders the ability for older people to engage in such activities. Also, some older adults do not desire to engage in new challenges.

Activity theory reflects the functionalist perspective that the equilibrium that an individual develops in middle age should be maintained in later years. The theory predicts that older adults that face role loss will substitute former roles with other alternatives. Kausler (1982) called this theory as 'engagement theory'.

3.1.3.3 Continuity Theory

The continuity theory of normal aging states that older adults will usually maintain the same activities, behaviors, personalities, and relationships as they did in their earlier years of life. According to this theory, older adults try to maintain this continuity of lifestyle by adapting strategies that are connected to their past experiences. The continuity theory uses a life course perspective to define normal aging.

Continuity theory, an alternative approach to both the disengagement and the activity theory is based on the premise that the various stages of the life cycle are characterized by a high degree of continuity. Atchely (1977) explains the theory as follows: “An individual may tend to react to the ageing process by maintaining consistency in his/her characteristics, traits and disposition which he/she has already developed in the early phases of his/her life cycle. The predisposition to act in a certain way is always subject to change or modifications due to an ongoing and sometimes complex form of interaction individuals have with others and with the
environment during all the stages of life cycle. Though there is a tendency towards consistency, the theory claims that people may also change their reaction towards ageing adapting to new situations.” (Atchley, 1976)

The theory does not see old age as a distinct period of life but as a continuation of some patterns or responses set earlier, particularly coping strategies of acting, thinking and feeling. Continuity is, therefore, positively related to successful ageing. Continuity theory considers the common features of old age and allows individual variation. The theory is considered as one of the most promising theories in social gerontology (Holzberg, 1982)

In the light of the above discussion, the disengagement theory can be compared with the ‘Vanaprastha Ashram’ - a life of detachment for those between 50-75 years in the Indian culture. This is followed by ‘Sanyasa Ashram’ - after 75 years a complete disengagement from worldly affairs and a person is expected to study religious books living away from his family.

Therefore, Manusmriti advocates a certain degree of voluntary detachment or disengagement as one enters into ‘Vanaprastha Ashram’ for good adjustment. However, lack of support for the theory of disengagement in Indian elderly was observed by Venkoba Rao and Madhavan (1982) and the validity of the ashramas was questioned by Paintal (1991), on the ground of metamorphic changes taking place on the traditional attitudes and values of life due to rapid socio-cultural changes (Paintal, 1991). To the Indian situation, Venkoba Rao (1989) suggested a midway between disengagement and activity theories, a situation which is named as ‘consultative statuses’. By this, he meant that the elderly are neither disengaged completely nor continue to be active as they used to be. Their advice is sought by the younger generation especially in traditional matters where the benefit of long experience would be advantageous. (Rao & Madhavan, 1982)

---

1 Vanaprastha ashram is the stage of life in the Vedic ashram system, when a person one gradually withdraws from the world
2 The topmost and final stage of the ashram systems and is traditionally taken by men or women over fifty or by young monks who wish to renounce worldly and materialistic pursuits and dedicate their lives to spiritual pursuits.
3 Metrical work of the Dharmaśāstra textual tradition of ancient Vedic Sanatana Dharma, presently called Hinduism. Laws of Manu, or Dharmic discourse to vedic Rishis, on ‘how to lead the life’ or ‘way of living’ by various classes of society.
3.1.3.4 Other Social Theories

There are certain other social theories which are developed to explain the ageing in social context. These theories are:

3.1.3.4.1 Labeling Theory

The labeling theory of aged, proposed by Bengston (1973), advocates to explain the actions of the elderly individuals in the society. The basic view of this theory are based on the assumption that when an individual is given a label of ‘old’, this label creates a significant impact on the way he/she is being treated and perceived by the society. In fact, this theory demonstrates a similar nature of symbolic perspective. As labeled individuals, the aged individuals are used to associate to new identities, positions and roles. Once labeled, it is difficult for him/her to change the label because all of his/her actions are interpreted in light of the new identity, positions and roles. Moreover, the action that does not confirm to the label will be abandoned and the action that confirms the new identity/positions/roles will be accentuated. (Bengston, 1973)

3.1.3.4.2 Social Reconstruction Theory

Social reconstruction theory is based on the social breakdown syndrome’s view, which suggests society has unrealistic views of the old and labels them as unproductive and useless. Social reconstruction suggests that society’s negative views of the elderly diminish the self-concept and self worth of the older adult. This theory advocates changing the environment of ageism, providing supportive systems for the older adult, and assisting the older adult in regaining control and independence in his/her life.

3.1.3.4.3 Role Theory

Rosow (1976) generalised that, as a cohort, older adults in retirement in a contemporary, global-industrial society occupy a role-less position. The fundamental argument of role theory is that, as people age, they are less well integrated with the structures of society and so experience role loss and subsequent decline in morale and life satisfaction. Building on role theory, it is hypothesized that multiple role involvement in later life is a predictor of psychological well-being (Rosow, 1963)


3.1.3.4.4 Modernization Perspective Theory

Modernization theory is a theory used to explain the process of modernization within societies. Modernization refers to a model of a progressive transition from a 'pre-modern' or 'traditional' to a 'modern' society. The theory looks at the internal factors of a country while assuming that, with assistance, "traditional" countries can be brought to development in the same manner more developed countries have. Modernization theory attempts to identify the social variables that contribute to social progress and development of societies, and seeks to explain the process of social evolution. Modernization theory is subject to criticism originating among socialist and free-market ideologues, world-systems theorists, globalization theorists and dependency theorists among others. Modernization theory not only stresses the process of change, but also the responses to that change. It also looks at internal dynamics while referring to social and cultural structures and the adaptation of new technologies.

3.1.3.4.5 Sub Culture Theory of Aging

The subculture theory of aging shows how aging is viewed from the conflict perspective. This perspective asserts that the elderly compete with younger members of society for the same resources and social rewards and suffer a variety of disadvantages because of their lack of social power. The subculture theory of aging states that older persons form subcultures in order to interact with others with similar backgrounds, experiences, attitudes, values, beliefs, and lifestyles. This happens not only by choice but because of segregation, social differentiation, and discrimination based on age. This theory assumes that aged people sever social ties with people from other age cohorts and increase them with others of similar age. These result in intensified age consciousness, creating social bond based on age that becomes more important than other variables that differentiate people.

3.1.3.4.6 Social Exchange Theory

Exchange theory assumes is that all behavior has costs, if only the probability that there are rewards associated with an alternative activity not being pursued. According to Dowd, interactions between individuals are characterized as attempts to maximize material and nonmaterial rewards. Interaction is maintained over time because it is rewarding, not because it fulfills a social need. However, in addition to rewards, costs are inevitable; they may be unpleasant or positive. Dowd suggested that the inability of a partner in the social exchange to reciprocate rewarding behavior
Review of Literature

provides the basis of power and can be used to secure the compliance of the person who has less power.

The social exchange theory suggests that there is a set of mutual expectations that governs our relationships. Successful relationships are based on reciprocal benefit. A parent cares for a child not only out of love but also as an investment for future security in old age. The child in return takes care of the aging parent out of obligation and love. The elder with limited physical and cognitive abilities often can offer little in return for the care that is needed to sustain them. The stress of care giving can sometimes outweigh the sense of obligation or love that a caregiver feels causing an imbalance in the reciprocal benefit, leading to caregiver burnout. As the frustration of care giving increases so increases the risk of abuse, abandonment, or neglect.

3.1.3.4.7 Ecological Perspective

The ecological perspective acknowledges the impact that the environment has on the individual. For the older adult, the influences of the social environment can be seen the lack services and resources provided for the continued independence of the elderly. Affordable housing, transportation, and medications are often a problem for the elderly who are often living on a fixed income. Poverty continues to be a major problem for the older adult. Poverty rates increase with age from 10.5% at 65 years of age to 14.2% for 85 years and older in the United States.

3.1.3.4.8 Time, age and ageing concepts

This theory argues that human ageing is too complex to be reduced to chronological time and concepts such as chronological age, life expectancies and old age dependency ratios. There is, therefore, a need to critically examine use of these concepts and to embrace other perspectives of time.

3.1.3.4.9 The life course perspective

The life course perspective focuses on the connection between individual lives and the historical and socio-economic context within which these lives unfold.

3.1.3.4.10 The political economy of ageing perspective (PEAP)

The political economy of ageing perspective seeks to understand differences in the treatment of older people and to relate these to the political, economic and social systems. The relative power of the state, business, labor and other social groups in society are central concerns to this theory.
3.1.3.4.11 Cumulative advantage and disadvantage theory

This theory emphasizes the role of early advantage or disadvantage in life. As a result of inequalities, some people are advantaged in early life, an advantage that may accumulate over time, whereas others are disadvantaged and these disadvantages may also compound over time.

3.1.3.4.12 Feminist theories of ageing

There is no single feminist theory of ageing. Feminist approaches to social policy and ageing begin with the argument that any discussion of the field must consider gender issues.

3.1.3.4.13 Moral economy of ageing perspective (MEAP)

The moral economy of ageing perspective directs attention to the collectively shared moral assumptions and popular consensus that legitimate certain practices, and the role they play in the social integration and social control of older people.

3.1.3.4.14 Post-structuralist theories of ageing

Post-structuralist approaches analyse social policy as a complex and contradictory space. These approaches argue that institutional responses must be more flexible than the traditional welfare state responses.

3.1.3.4.15 Theories emphasizing a sense of meaning

Human beings look for meaning in life and this is particularly significant in later life. This perspective seeks to understand what gives older people a sense of meaning and purpose.

3.1.3.4.16 Phenomenology of ageing

Social phenomenologist’s focus their attention on ideas and presumed facts about ageing and how these are understood by the people who experience ageing.

3.1.4 Psychological Theories of Ageing

Psychological theories of ageing are often considered as the extension of personality and development theories into the middle and late life. Personality theories attempt to explain the contradiction reported in the disengagement theory and activity theory. Havighurst (1968), one of the major proponents of the personality theory asserts that it is not the level of activity but rather the ‘personality types’ that is the pivotal variable in determining life satisfaction. Different personality types need different levels of activity for high life satisfaction. Personality theories suggest that
the study of personality in old age must consider the possible alteration in the physiological process of the elderly person and the interacting relationship that exists between the individual and his/her environment. Personality and development theories of ageing are to a remarkable degree complicated by the fact that as humans pass through their life experiences they become increasingly different rather than similar (Busse & Blazer, 1980)

Neugarten et al (1968) has noted some areas of personality that do change with age. There is a gradual shift from an outward - external to a more inward - internal orientation. With age, adults appear to become increasingly concerned with thoughts, feelings and ideas. There are sex differences in certain personality traits in late life. Men are more affiliated and nurturing. In contrast women become more individualistic, egocentric and more aggressive. (Neugarten, Havinghurst, & Tobin, 1968)

Increasing cautiousness or conservatism is often associated with advancing age. According to Botwinick (1966), cautiousness does increase with advancing age, but the degree of cautiousness is influenced by the type of problem and by when it is placed in the life span. (Botwinick, 1966). However, a study by Okun, Siegler, and George (1978) suggests that cautiousness is strictly not an age effect but a 'multidimensional construct'. (Okun, Siegler, & George, 1978)

3.1.4.1 Life Span Development Theories

Among the psychological theories life span development theories occupy a prominent place. The psychological model of ego development formulated by Erickson (1959) is probably the most well known example of life span development theory. Erickson proposes eight critical phases in human development. Five of the eight stages deal with childhood and adolescence; the entire adult life span is covered in three phases: intimacy vs. isolation, generativity vs. stagnation and integrity vs. despair. The emphasis on the integrity of the life span is Erickson's lasting contribution and the one that is vital to an understanding of old age. The crucial task during this stage is to evaluate one's life and accomplishments and to affirm that one's life has been a meaningful adventure in history; this would be the sense of 'integrity'.

Peck (1955) made an elaboration on Erickson's theory on adult life stages in old age, Peck sees the following three issues as central: (1) ego differentiation vs. work role pre-occupation, (2) body transcendence vs. body preoccupation, and (3) ego
transcendence vs. ego pre-occupation. Successful resolution of each issue involves adaptation. (Peck, 1968)

Buhler (1968) proposed a self-fulfillment theory, which outlines five phases of life that correspond to the five biological phases. The theory emphasizes the process of setting goals at different phases of one's life cycle. Goals become gradually established during the first two decades of life that ideally lead to self-fulfillment during the culmination period. Last phase, according to this theory, contains experiences of retrospective nature and considerations about the future, i.e., oncoming death and one's past life. There is critical self-evaluation or lack of it in terms of lifelong accomplishments. Failure and losses are unavoidable, but many individuals attain practical fulfillment. Satisfaction is obtained in one or two basic areas of life. (Peck, 1968)

Levinson's (1978) study attempted to examine the interrelationship between family career and individual development. He proposed a normative theory of life structure which consisted of a series of altering stable (structure building) and transitional (structure changing) phases. Beyond the age fifty Levinson's data fade. However, he acknowledges that individuals continue to develop and change in late middle age and old age, i.e., there will be a continuing sequence of structure building and structure changing periods.

Sahaie (1977-78) has advanced what he calls 'a stage theory of adult cognitive development'. The theory proposes four cognitive stages, such as acquisitive (prior to adolescence), achieving (young adulthood), responsible and executive (middle age) and re-integrative (old age). (Sahaie, 1977-78)

The above discussion on theories of ageing brings home the fact that numerous theories have been proposed to explain the mechanism of ageing. All have inherent drawbacks and there is no evidence for a single proof mechanism of ageing. The different ageing theories explain the different aspects of the ageing. It included the biological, psychological and social perspectives of ageing process. This is not a complete aspect in explaining the theories as there are many more additions in different aspects of ageing in every day practice.
3.2 BIOLOGICAL, SOCIAL AND PSYCHOLOGICAL DIMENSIONS OF AGEING

3.2.1 Biological and Health Status of Elderly

Age related changes in sensory system affect the quality and quantity of the individual's interaction with the world at large. Health is a very important factor for the well-being of the elderly since they are prone to diseases due to degeneration of cells. A large number of the aged suffer ailments like cough, piles, joint pains, blood pressure, heart problems, urinary problems, diabetes etc.

The degenerative changes that occur in old age cause some discomfort in biological and psychological functioning of aged persons. Some are common to all persons like graying of hair, loss of eye sight; some are unique to individuals like depression, dementia, etc. Goyal and Goyal (1999) conducted a study with a few objectives like to identify common old age diseases and psychological problems being faced by the aged and to suggest geriatric services to them in rural areas of Betul district, Madhya Pradesh. The sample was collected randomly and it revealed that 21.42 per cent respiratory, 17.86 per cent problem of eye, 16.07 per cent bone and joint problems were most common complaints by the respondents. The study suggested geriatric services, preparation of health policy for elderly and creating awareness about health problems and care measures. (Goyal & Goyal, 1999)

On entering old age, having fulfilled their responsibilities towards the family, the elderly should participate in health related activities, leisure activities, religious activities to utilize their free time properly and maintain good health. Malhotra and Chadha (1994) conducted a study to find out the difference between pensioners and non-pensioner regarding health related activities, physical and solitary leisure activities, cultural and social leisure activities. The sample size was 100. It consists of 50 pensioners and 50 non-pensioners aged above 58 and residing in West Delhi. The data was collected with the help of personal information schedule, health schedule, leisure time and social participation schedule. The results revealed that 42 per cent of pensioners and 40 per cent of non-pensioners did not feel that their activities had been limited due to illness. Majority of the pensioners and non-pensioners were having health problems like heart trouble, chest pain, diabetes, blood pressure, general weakness, gastric problems, problem in vision and teeth trouble 40.5 per cent
respondents were receiving care both from spouse and sons during illness. (Malhotra & Chadha, 1996).

The elderly suffer more from chronic degenerative conditions, new growths and accidents. Since their disorders are so different from those of the young, geriatrics certainly deserves to be considered a specialty of medicine. Pathak (1982, p. 48), observed in Bombay hospital, elderly patients that, "each elderly has several disorders, more than 2.5 notable ones in almost" all. Cardiovascular 62.6 per cent, Gastrointestinal 45.25 per cent, Uro-genital 32.51 per cent, nervous 19.77 per cent, respiratory 19.18 per cent are faced by the elders”. This may be because as age an increase some deterioration occurs in everyone and multiple pathology is common in elderly. (Pathak, 1982)

Throughout the life cycle nutrition has a significant impact on health and the quality of life and it also-plays an important role in controlling the rate of human ageing. As age progresses, the digestive system weakens and results in loss of appetite. Added to this, in old age problems relating to social, economic and psychological arise and cause decrease in intake of food. Malnutrition is one of the common problems among older adults. One-third of people over the age of 65 suffer from nutritional deficiencies. Sen and Dabir (1999) stated that, the incidence of protein-calorie malnutrition is higher among the elderly than any other segment of the population. Also nutrient intake can be affected adversely by several factors like physiological changes, depression, loneliness and a sedentary life style which may cause a decrease in appetite. (Sen & Dabir, 1999)

The nutritional food intake by the elderly depends on their socio-economic conditions. Awareness of the importance of nutrition food is also another important factor. Jayanthi et al. (1996) explored the effect of economic pressures, disabling diseases, and social neglect on the nutritional status of the elderly. It was hypothesized that all these variables could lead to nutritional problems. Information on dietary habits, socio-economic conditions, and anthropometric and medical status of 30 men and 30 women in the age group of 55-65 years was obtained. It was found that the old were aware of the importance of nutrition. There was no negative effect of any of the three variables in the sample studied. (Jayanthi, Rajalakshmi, & Natarajan, 1996)

In old age, the consumption of food declines and at the same time there is a need for intake of some nutrients to prevent some degenerative changes. Therefore,
nutrient rich food apart from cereals and pulses, vitamins and minerals must be supplemented to the. Elderly along with their regular diet, Calcium and Vitamin-D supplementation reduces bone loss and also the risk of fractures in persons aged 65 years and more. Banerjee (2000) studied 176 men and 213 women aged 65 years who were living at home. They were randomized to take a combination of 500 mg/day of calcium along with 700 I.U/day of Vitamin-D supplementation. And found that after 3 years, all patients in the supplementation group experienced significant increases in total body bone-mineral density (BMD). And an inference can be also drawn that calcium and Vitamin D supplements benefit both elderly women as well as men. (Banerjee, 2000)

Healthy life styles are necessary to maintain good health status. If a person is addicted to bad habits, it will affect his health status. Every person needs good health behaviour practices from early days of life to lead healthy old age. Nelson et al, (1994), examined associations of current and lifetime cigarette smoking and alcohol use with measures of neuromuscular function and self-reports of physical function. 9704 female white, generally healthy volunteers (aged 65 years and older) living independently, completed a questionnaire about cigarette and alcohol use, physical activity, and history of a stroke or other diseases. Ten per cent of the subjects reported that they were currently smoking; 29.6 per cent smoked formerly, and 60.4 per cent had never smoked. 54.3 per cent were current drinkers; 16.5 per cent had consumed alcohol in the past; and 29.1 per cent said they never consumed alcohol. Current smokers and to a lesser extent, former smokers, were weaker, had poorer balance, and had impaired neuromuscular performance compared with non-smokers. Non-drinkers had worse performances in all but one measure of physical function compared to light or moderate drinkers. (Nelson, Nevitt, Scott, & Stone, 1994)

As mentioned by Indira (2000-01), the elderly in India show considerable morbidity and somewhere between 45-55 per cent of the older people are suffering from chronic illnesses. Added to these, geriatric medicine is yet to develop in the country and the available health system is not meeting the needs of the large" group of the elderly, (Indira, 2000-01). According to Durairaj and Kalarani (1999) "apart from physical problems, old people have mental problems also. They suffer from mental tension because of ill health of self or their life partners and feel their loneliness very strongly. Thus, emotional insecurity of the aged is a serious problem. Family care is still considered to be the main source of social protection for the elderly. Because the
Review of Literature

Aged expect not only economic support from the younger generation but more of social and emotional support also. (Durairaj & Kalarani, 1999)

Due to the multiple and chronic health problems associated with ageing, the need for systematic action by health care practitioners, administrators, and policy makers, becomes urgent. Their challenge is to provide a wide range of health care services in a manner that reflect current state of knowledge about the cost-effectiveness and health benefit of these services. "Providing health care to the elderly is increasingly complex. The number of older people is growing; particularly within the oldest age groups, where a large proportion of individuals have significant health care needs" (White, 1989). The financial and social resources necessary to provide health care services are already strained. Hence, there is a need to the Government to improve the health services.

3.2.2 Social Status of Elderly

It is very essential to have human contact for elderly people. It is also important to maintain the elderly in their own environment, but we must be sure that they are not alone by themselves all the day. Suresh stated that, "Swedish researchers have said that elderly people living alone without a social network or close friends may have 60 per cent increased risk of developing dementia" (Suresh, 2000). According to Ruth (1998) elderly population with dementia are increasing. Less than 3 per cent for the population of 65 to 70 years of age and more than 25 per cent in the age group of 85 and above. He stated that a long time caring is necessary in the case of elderly with dementia.

Rao and Parthasarathy (2000), discussed some of the negative attitudes towards the elderly like, elderly people are not willing to discuss their emotional problems, talking about death and sickness, poor memories, and their disability. They also discussed some important conditions contributing to happiness and stressed the need to develop favourable attitude towards old age like a realistic attitude towards physical changes, continuing participation in interesting and meaningful activities, a feeling of satisfaction, and enjoyment of recreational and social activities. (Rao & Parthasarathy, 2000)

The families must identify the specific needs regarding health and welfare of the elderly and ensure measures to promote the same. This would provide emotional
Psychological Wellbeing of Residents in Senior Care Homes- Case work Intervention

stability to them (Bhatla, 1999-2000). Respect and dignity to the elderly prevent isolation, loneliness and a feeling of being unwanted among them. Through a pragmatic approach, the aged should be involved in family decisions and functions.

Siva Raju (2002) conducted a study to assess the health status of the elderly in a ward in Mumbai. The universe is 300, but the final sample who attended camp was 156 (males 87 and females 69) from three income levels i.e., small, middle income group and well to do. The data was collected through interview schedule and the results are 58 per cent belong to forward castes, 33.3 per cent who are having assets, irrespective of their socio-economic class, had no plan of transfer of assets to other family members. A majority 65 per cent among the poor elderly said that younger members of their family usually sought their opinion on day to day matters. 61.3 per cent who did not have any addiction and of the rest, 18 per cent were addicted to pan and 13.3 percent to smoking. The respondents are suffering with health problems like blood pressure (52%), anemia (47.5%) and vision impairment (62.8%). (Siva Raju, 2002)

Amrita Bagga (1994) carried out a study with 87 older women living in three homes for the elderly in Pune. Data collected regarding socio-cultural dimensions, health status of the elderly and anthropometric changes in the body of women as they grow old. The results revealed that the most common health complaints are blood pressure variation (52.23%), digestive problems (42&), arthritis (43.3&) fracture (13%) with 5 per cent experiencing repeated fractures. (Bagga, 1994)

Elderly population among the slum dwellers constitutes a very small percentage. As most of the population of the slums is drawn to work in the unorganized sectors, one finds most of the people working in the informal sector earning a very meager amount which is not sufficient to maintain the-family. A majority of the elderly are working at present to meet family expenditure. Daksha Barai (2000) conducted a study with 120 elderly slum dwellers which was randomly selected from Bangalore city slums to know their socio-economic and health status. The survey indicated that majority are in the age group of 60-64 years, 75 per cent were Hindus and 70 per cent were Scheduled Castes/ Scheduled Tribes. Almost all dwellers are illiterates. 37 per cent were being drawn into the unorganized sector labour force. 38 per cent as coolies, 27 per cent construction workers, 55 per cent were living in mud and brick houses. 55 per cent expressed health problems like poor eye sight, weakness and body aches. This shows the situation of the aged in slums and the need for betterment of their position. (Barai, 2000)
Environmental and social factors play a very important role on ageing process and the health conditions of the elderly. Joshi (1971) conducted a study on the medical, problems of old age. He states that differential ageing phenomena both physical and mental appear to depended on environmental and social factors such as diet, type of education, occupation, adjustment to family, professional life and consumption of tobacco and alcohol. The results show that the elderly persons suffer from ineffective and parasitic diseases, diseases of respiratory system, symptoms of ill defined similarity arthritis and rheumatism, hyper-tension, congestion, heart, failure, and diabetes mellitus. (Joshi, 1971)

Involvement in religious activities is more in old age. Religious belief plays a crucial role in avoidance of loneliness among the elderly. Patel and Broota (2000) conducted a study to find out the role of family set-up and religious belief in the experience of loneliness in later life. The samples comprised of 60 elderly both male and female equally ranging in the age from 50 to 82 years residing in Coimbatore. Through incidental sampling technique, the samples were selected and the results revealed that there were no significant differences between older people from joint family and nuclear family in experiencing loneliness, and death anxiety. However, religious elderly experience significantly less loneliness than non-religious elderly. Thus, participation in religious activities builds positive framework towards life in the elderly (Patel & Broota, 2000). Mellor (1989) from his study found that neither age nor place of residence was related to loneliness and availability of social support rather than the quality of social support. Social support is a central factor in determining psychological adaptation to old age. (Mellor, 1989)

Due to ill health, loss of the loved one and limited income the elderly will face stress and strain. In this situation, social support plays a very important role which affects not only the physical but also the mental health. The importance of the relationship between social support and depression was also pointed out in the clinical observation among the aged (Hange, 1989).

Mattila and Salokangas (1990) conducted a follow-up study of 151 urban and 147 rural residents of Turku, Finland, who had completed interviews on adjustment to retirement. Subjects were aged 61 years at the time of the 1st interview in 1982. During the 4-year follow-up period, subjects' bio-psychosocial situation remained almost unchanged suggesting that retirement is not a factor of crucial importance. Of the variables relating to the initial survey, poor subjective health, self-assessed work
disability, poor financial situation, poor mental equilibrium in spouses, an excess of leisure time, and general dissatisfaction with life were associated with subsequent mental disturbance as measured by the general health questionnaire. (Mattila, Joukamaa, & Solokangas, 1990)

The effect of retirement on the retirees' health will be seen immediately after their retirement. Whatever changes occur among them positive or negative due to retirement will be continued as the day's progress and their adjustment to the retirement. We need a multi-pronged approach to promote healthy life styles and environments for the elderly. The non-pharmacological management is a very important preventive strategy. It includes dietary counseling and intervention, prescription for exercise and weight control, counseling about negative effects of smoking and alcohol, stress reduction and injury prevention, recreation and group building. Development of nutritional and health services for the elderly is the need of the day. Non-governmental organizations as well as government agencies have to take up these projects.

3.2.3 Psychological Dimension of Ageing

Among all the problems faced by the elderly, loneliness is a serious problem which leads to psychological disturbance like depression, withdrawal, etc. The psychological problems result from a feeling of neglect and humiliation by the family members. Thus, they may be facing depression and sickness Chowdhry, 1992, which can be alleviated through social intervention and other alternatives. (Chowdhry, 1992)

As the age increases the physical and mental conditions change. Das and Nimai Charan (1994) discussed the psychology of ageing by examining the physical and mental signs of old age. Physical signs include baldness, loss of teeth, graying hair, wrinkled skin, etc. Mental signs include a loss in concentration or attention, loss of recent memory, development of religious sentiments, frustrations, depression, weakening of reflexes, etc. Though ageing is inevitable, it can be controlled by following the principles of mental hygiene. (DAS, 1994)

Sleep is a great rejuvenator. Lack of sound sleep affects the digestive and nervous systems. Relaxation prolongs life while tension shortens it. Old people should relax and meditate frequently. Bakhirue (1995) stated that, adequate sleep, physical and mental rest and relaxation are as important as exercise in slowing the ageing
process. They should live in the present and cultivate interest towards life and other people. "Confidence should be created in the minds of elderly that though they are old, weak and sick, they are still an integral part of the society" (Ara, 1995). Cheerfulness, contentment and confidence are the characteristics of happy living in old age. One of the most important factors determining happiness in old age is a positive self-concept. (Bakhure, 1995)

The quality of life depends on living conditions and the type of relationships they are maintaining with family members. Good family dynamics leads to better understanding and co-operation. Katyal and Bector (1999) compared the quality of life of old people living with their families and those living in institutions. The study was conducted on 40 elderly (65 + ) who are selected randomly from Chandigarh. The data was collected by using questionnaire. The results of the study revealed that old people living with the families, who have cordial relation with their children consider themselves to be self-sufficient and have a positive frame of mind in contrast to their counterparts living in institutions. Old people are more susceptible to the state of negative mental health. (Katyal & Bector, 1999)

With the increase in life expectancy, the proportion of elderly people is rapidly growing. Their health problems both physical and psychological and other requirements need considerable concern. Sinha (1971) studied the loneliness among the elderly and emphasized the fear of death due to psychological deterioration. Due to changes in social status associated with old age, compulsory retirement, loss of status, occupation, income and family status, consequent to the weakening of joint family ties, etc., cause psychological stress on elderly. (Sinha, 1971)

Rathi et al. (1996), studied loneliness among 40 males and 40 females (aged 55 to 70 years), who were classified into two levels of marital position (with and without spouse) to levels of sex (male and female) and two levels of age (young-old and old-old). A standardised version of the loneliness scale by Kussell, Peplan and Cutrona was used to collect data. Findings indicated a high degree of loneliness among the spouseless elderly. (Rathi, Latha, & Mrinal, 1996)

Emotional insecurity of the aged is a serious problem; mostly they are abandoned by their loved ones in the twilight years and reduced to being nobody within the confines of their own houses. Mehta and Mallya (2001), conducted a study to identify ascertain the perception of the elders on psycho-social aspects and support systems. In the study, with the help of an interview schedule, the data was collected

Review of Literature

Psychological Wellbeing of Residents in Senior Care Homes- Case work Intervention
Psychological Wellbeing of Residents in Senior Care Homes- Case work Intervention

Review of Literature

from 30 elderly who were selected by systematic random sampling technique from 3,709 elderly ranging from 60 to 100 years from Vadodara City. The results revealed that the 63 per cent were awaiting death. Out of this, 47 per cent expressed that the reason for awaiting death as miserable life conditions. 50 per cent expressed general weakness; 71.3 per cent were not utilizing primary health centres because of inadequacy of drugs. (Mehta & Mallya, 2001)

Man is a social being. Healthy interaction among the people reduces stress and strain. This is more so in the case of retired people as interaction will be less due to their retirement from work. Hence, in the old age one should establish a good relationship and friendship with the people around them; this will make them adjust well with their old age complications. The study conducted by Williams and Robert (1995) explored the social interactions and friendship that exist among cognitively impaired adult day care participants. A five months participant observation of an adult day care centre was conducted, involving fifty-three clients ranging in the age from 66 to 93 years. Findings indicated that the clients engaged in a variety of social interactions and friendships which enable them to maintain a sense of self and which make them to adjust to the norms of the group. (Williams & Robert, 1995)

Older people are often victims of mental disorders on account of their fear about death and feelings of dependency, anxiety, boredom, loneliness and helplessness. The treatment and diagnosis of psychological problems are not yet prioritized. Many old people suffer from mental illness, which their families may not even be aware of tem. Every human being has emotional attachment to their own kins and creeds. The socio-biological view considers the phenomenon of social support to be deeply rooted in our biological inheritance, providing a central influence in our success of life form. (Pearson, 1990)

One of the major psychological problems of elderly women is loneliness as most of them are widowed and also due to mobilization. The concept of loneliness with particular reference to old age suggested that successful treatment of loneliness in life reduces the risk of more serious complications, such as feelings of meaninglessness, decrease in social contacts, self esteem and trust. (Asgarali & Broota, 2000)

In Kerala, which has the highest proportion of elderly in India and has several social security schemes 73.6% of the rural females and the 76% of the urban female
are fully dependent on others. This shows that vulnerable elderly women are even in Kerala are known for its high order of social investment.

Aged face psychological problems like decreased vitality, loss of work, reduced income, isolation, age associated disablety, lack of protection and supervision, deteriorating mental function which of leads to psychological problems (Goyal & Goyal, 1999)

Changing society had an overall negative impact on their wellbeing of the aged. A negative impact of change in times a mental wellbeing was evident from views expressed by respondents and strongest feelings was increasing loneliness and alienation in lives of elderly due to changing orders of society, elderly are more sad and depression in the materialistic world and feeling of mental insecurity is due to lack of moral support from adult children due to emotional and physical distance from them (Sunder & Bakshi, 2004)

The rural aged was found to suffer from anxiety alienation, maladjustment, fear, tension, and feeling of insecurity, worthlessness, dependency, loss of memory, vision, hearing, giddiness and body pain (Selvi, 2001)

An old person begins to feel that even his children do not look upon him with that degree of respect which he used to get some years earlier. The old person feels neglected and humiliated. This may lead to the development of psychology of shunning the company of others; loneliness intern may give risk to depression and may eventually lead to worsening of sickness (Chowdhry, 1992)

A study on the psycho-social problems of the retired concluded that age had a significant positive relationship with psychological distrust and significant negative relationship with attitude towards physical changes. (Patil & Prema, 2000). Psychological problems such as loss of job, anxiety, depression, loneliness, lose of social support, neglect, abuse and exploitation were faced by elderly (Nalini & Meera, 2002)

In a study on aged, the per capita income was found to have negative and significant relationship with depression and number of children was found to have positive and non- significant relationship with depression. (Patel et. al., 1998) Gradually elderly people developed a feeling of uselessness and purposelessness. Opportunities must be made available to the aged to fulfill their varied kind of needs adequately. (Singh, 1995)
In a study on psychological problems of elderly it is found that 88% of old people were found suffering from mental tension. 94.5% were found suffering from fear of death, 77.7% were found suffering from feeling of dependency, 70% found suffering from anxiety, 62.5% were found suffering from feeling of loneliness, 60% were found suffering from feeling of helplessness, 52.5% old people were found suffering from depression, 52% were found suffering from the feeling of uselessness. In this study 70% old people did not know whether they were suffering from whims, 16% said that they were not suffering from whims, whereas 14% told that they were suffering from whims, 80% old people felt that they had mental freedom. (Patel H., 1997)

It is observed in a study that a sizable majority of the aged suffered from loss of memory, lack of proper vision, no sleep and losing teeth. Psychologically the maximum number feels isolated, frustrated and depressed. A good number of aged feels separation of children as a major setback in their life. Majority of them feel that there is no respect and importance in the family. Sizable number feels lonely following death of spouse. (Siva Raju, 2002)

Depression increased with aged people. Gender wise comparison revealed that females had a low level of depression compared to males; the depression level of respondents living in joint family was less. (Patil & Yadav, 1998)

A study on role of adjustment and status in aged conducted among the Bengali population of Meghalaya found that feeling of isolation was high in female and they had poor life satisfaction. Income seems to be very important factor influencing adjustment. Widowed older women being dependant on families, face several problems in adjusting to others.

A study conducted in two places to estimate the prevalence of dementia, one rural and other in an urban area of Madras, India found that the prevalence of dementia was 3.5% in the rural and 25% in the urban sample and increased exponentially with age. Rural prevalence estimates were higher than the urban estimates. Though gender differences were negligible in rural setting, dementia rates were significantly higher among urban males in contrast to urban females. The authors compare the findings of the two studies and discuss their implication for India’s growing elderly population in the context of age, literacy and gender. (Kumar & Shubha, 1998)
Review of Literature

Most of the studies reviewed in section indicate that almost all elderly had one or other psychological problems and the psychological problems tend to increase with age.

3.3 CARE AND SUPPORT FOR THE AGED

In most industrial and pre-industrial societies, the family was the main provider of care of their elderly relatives. In many cases, family is merely euphemism used for women who shoulder the main burden of caring for the intimate aspects of personal care and are engaged in taking care for longer period of time. (Walker, 1992)

The trend in the size and growth rate of the elderly population in the country will become a major social challenge in the future when vast resources will need to be directed towards the supported care and treatment of the old. To solve the emerging problems of the elderly effectively, a holistic approach has to be followed considering the social, economic and cultural changes that have taken place in Indian society. (Raju, 2002)

Population ageing is an inevitable phenomena experienced by many countries and regions in Asia. Until recently, population ageing was not given the right view and interpretation. Population ageing is the change that occurs within the family setup. It is evident that the structure, function and values that are traditionally held by families are rapidly changing. With the social, economic and cultural changes occurring in the society, families are faced with a difficult challenge concerning the position and responsibilities of families towards their elderly relatives. Although, changes are good indicators of development, dilemma for support capacity of the family towards the elderly is inevitable. With many women entering the work force, available support for the elderly has significantly reduced. As consequence, the international year of the family has appealed to the world to maintain, strengthen and protect the family to ensure continuity of its vital role in preserving dignity, status and security of its ageing members. (Achir, 1998)

In the developing world, the household is a critical institution for the older adults, who often require social, economical and physical assistance. Most industrialized countries have public pension and health system to support the elderly, but in many developing countries little or no such public support is available. As a result, older adults in Africa, Asia and Latin America tend to rely heavily on
Review of Literature

household members and families for their well-being and survival. It was noted that as countries become more developed, extended families weaken and families become more nuclear. Therefore, countries with higher level of education tend to experience more internal migration and to have more extensive government-funded social security and health programmes for older adults. (Population Breifs, 2001)

Throughout Asia, the proportions of national populations aged 65 years and above are predicted to grow rapidly over next 50 years. While this process of ageing is already well underway in the more economically developed countries in East Asia, it is just beginning to accelerate in Southeast Asia. This increase in the proportion of the elderly population creates simultaneously brings to the forefront the concern that changing household structures will translate into a decline in support for the elderly (Beard et al., 2001)

Indian is a country with tradition of respecting, loving and supporting the aged. The extended families of several generations under the same roof were the basic units of production and livelihood in the traditional agricultural society in ancient India. As a result of westernization and economic development, instead of living in joint families, living in nuclear families is becoming the way of the day and this type of transformation brought more difficulties in supporting and taking care of the aged. In India, certain recent developments such as industrialization, high cost of living, migration of children to other places, disintegration of joint families etc., have given rise to some stress and strains which have made the position of the aged more problematic. The status of the aged women has been further affected due to less importance being assigned to socio-religious ceremonies in which her knowledge and advice were valuable and less use of her knowledge and experience in child rearing due to greater reliance on modern medicine technology and information. The problem of old age has become a social problem in society like in any other country of the world. (Help Age India, 2002)

3.3.1 Cultural Change and Care for Elderly

Women, the traditional primary care givers in the family are unable to extend care to the elders due to increased educational and vocational opportunities and need to earn to support family (Jamuna, 1991). In contemporary India, women in urban areas are seeking employment on a regular basis resulting in an inability to care for their elderly continuously. In rural areas too, women are often have to be away from
home on agricultural or other casual work to earn their livelihood. Therefore, employment, formal or informal, and other domestic chores impose a burden on the care giver affecting the quality of care giving. (Dharmalingam, 1994)

Increasing industrialization, modernization and urbanization of jobs, have had a negative impact on the traditional welfare institutions and higher socio-cultural values. These have resulted in deterioration of joint families, migration of children in search of jobs, growing consumerism and communication facilities, etc. the absence of higher socio cultural values have given way for materialistic approach, individualism, selfishness, etc., and thereby the life of elderly becomes vulnerable (Arora, 1993). Depression and emotional shocks are common among the aged. They feel isolated and side track by the society. (Bajpai, 1998)

At any age, the family provides the individual the emotional, social, and economic support (Soldo & Agree, 1988). The ability of the aged persons to cope with the changes in health, income, social activities, etc. at the older ages depends to a great extent on the support the person gets from his/ her family members. This support, it may be said, is more culturally based rather than development dependent. For instance, in India, the cultural values emphasize that the elderly members of the family be treated with honor and respect. In order to examine what the situation is in practice the data collected from 4 villages in Dharwad taluk of Dharwad district in Karnataka State of India, are analyzed and the results are presented in this and subsequent sections of the paper. (Wadakannavar, 1992)

The living arrangements for the (Wadakannavar, 1992) aged persons is often considered as the basic indicator of the care and support provided by the family. However, it must be noted that this practice is more culturally based rather than development dependent. For example, in USA only about 15% of the aged persons lived with their children, whereas in India about 75% lived with their children (Bose, 1990)

### 3.3.2 Living Arrangement

Living arrangement is very important in terms of providing support for the elderly can, in general, guarantee their well-being. In India, where the family has an obligation to care for the elderly, the consequences of rapid declines in fertility and
Review of Literature

mortality on elderly living arrangements are an interesting issue in the field of population and development.

Populations are ageing with changes in the living arrangements of the elderly occurring in most countries as a result of lower fertility, higher mobility, changing attitudes about family structure and function and increasing life expectancy, especially mortality declines in later life. The population of China which consist of more than two fifth of the World total, is ageing at an extra ordinarily rapid base. There are important interactions between population ageing, changes in the living arrangement of the elderly and the need for long-term-care service. Such interactions are directly related to community and family support systems and public policies (Yi & George, 2002)

Social security systems have become major elements of social development in the twentieth century, with particularly important effects on well being of the older groups of society. The past 25 years alone have witnessed dramatic improvements in living standards among the elderly in Europe and United States of America, combined with similar shifts in pension payments and the maturing of pension plans. In fact, in those countries, there has been a substantial decline in the proportion of those covered by social assistance who are elderly. Although less marked than in the more developed countries, social security has also played an important role in the development process of many Latin American countries. More recently however, Governments in developed as well as developing countries have come to view changes to the regulation and laws of their social security systems as key factors in the reform of the state. In truth, the social security crisis, which includes then reform of the pension system, has become one of the world’s most debated social policy issues at the end of the twentieth century (Saad, 2001)

Throughout Asia, the proportions of National population aged 65 years and above are predicted to grow rapidly over the next 50 years. By this process of ageing is already well underway in the more economically developed countries in East Asia, it is just beginning to accelerate in south East Asia. This increase in the proportion of the elderly population creates new demands for social and economic support and simultaneously brings to the forefront the concern that changing households structure will translate into a decline in support for the elderly, presently in Indonesia most elderly parents co reside with their adult children. However preliminary studies
Review of Literature

provides some evidence that casts doubt on the presumed relationship between co residents and receipt of support

Living arrangements are influenced by a variety of factors including marital status, financial well being, health status and family size and structure, as well as cultural traditions such as kinship patterns, the value placed on living independently or with family members, the availability of social services and social support and the physical features of housing stock and local communities. In turn, living arrangement affects life satisfaction, health and most importantly and for those living in the community, the chances of institutionalization. Once living arrangements are dynamic and they change over the life course adapting to changing life circumstances. Some significant observations emerge from a cross national comparison of living arrangements of the older population. First, women in developed countries are much more likely than men to live alone as the age; older men are likely to live in family settings typically with a spouse. Secondly, there has been an increase in the proportion of the older population that is living alone in developed countries. Thirdly, both older men and women in developing countries usually live with adult children. Fourthly, the use of non-family institutions for care of the frail elderly varies widely around the world but is relatively low everywhere.

The results of the study on the demographic and socio economic correlates of living arrangement of women aged 60 years and over in Lesotho show that a majority of elderly women in the country are widows, live in the rural areas, have had little education and dwell in extended family households of which a significant proportion of them are the head. The findings further indicates that the age of women's surviving children and advising age of the elderly themselves are important factors contributing to kin co residents of the Lesotho elderly female population. The propensity of co residence is found to increase with advancing age, while higher levels of educational attainment have significant negative correlation with the likelihood kin co residents. A combination of fertility decline, migration and urbanization puts the older women in a disadvantaged position since there are fewer adult children available to provide support and care and there is no universal non familial social security system

In India, gradually the sex ratio is getting even doubt. India is one of the few countries with the dubious distinction of having an unfavorable female to male ratio in the population with demographic changes. Now there will be older women in India too. But the bad news is that they are likely to be more vulnerable due to socio
cultural reasons. Older women are likely to have more health problems, less likely to be financially dependent and have less power on status compared to old man. India lives in her village, old people in the rural areas face several hardship while being deprived of basic amenities that take granted with migration and urbanization depriving rural areas of its able bodied empty young people, rural areas will become packets poverty living arrangements also change leading to problems in providing security to elderly (Prakash, 2001)

A study on the living arrangements of elderly revealed that except a few (7 percent) almost all elderly live with the children. These few are living by themselves in single household because of not having any children. Among the others 73 percent live with their sons whereas 20 percent with their daughters. (Dharmaliangam & Murugan, 2001)

More elderly are now living in joint households, with one or more married sons and some other relatives than about 50 years ago. However, the rest of the older persons either live alone or with spouse and also in pilgrim centers and old ages homes (Shah & Prabhakar, 1997)

A comparative study of living arrangements of elderly conducted in Tamil Nadu, revealed that a remarkably large percentage of respondenets (40 per cent) from Chennai lived with their spouse independently whereas in Coimbatore, 35 percent the sample lived in joint family set up (Nalini & Meera, 2002)

The result of a study on the, living arrangements of elderly revealed that only 9.16 percent of respondents lived alone and 18.33 percent lived with spouse only. Majority of the respondents (77.50 percent) lived with their children (38.34 per cent as couples and 34.17 per cent as widows) and 95 percent lived in their own house (Sunder & Bakshi, 2004)

Majority of the oldest old women (68-88 percent) and men (59-83 percent) aged 80-105 lived with their children. The higher the age, higher the proportion of the oldest old living with their children. Female oldest old of all age groups are more likely to live with their children because they are more likely to be widowed and economically dependent (Zengyi, 2002) .Most of the elderly stays with their unmarried children, when it comes to sharing their inner feeling of life, like joys and sorrows. They preferred and considered their wife as their close and intimate person in the family. It is also pointed out that the respondents have maintained friendly relations with their grown-up-children (Jayashree, 1999)
In a study on Living arrangement of elderly found that on an average the Indian elderly are residing in a household where at least seven members are living. Interestingly, only 2.4 per cent of the elderly are living alone and another 3.5 per cent are residing with other relatives or non relatives. More elderly female (3.49 per cent) are living alone compared with males (1.42 per cent). In other words, only 6 percent of elderly in India are living in a family where their immediate kinship is not present in the household (Rajan, 2005).

Another study on the living arrangement of elderly both in rural and urban areas found that 7.31 per cent of the elderly in rural areas as against 5.54 per cent of the elderly in the urban areas are living alone. Living with children is more common among the urban elderly (50 percent) than the rural elderly (48.57 per cent). On the other hand, percentage of elderly living with spouse is more in the rural areas (37 percent) than in the urban areas (35.26 per cent).

Old people living with their families have cordial relation with their children and spouse, their social interaction are good and they have a positive frame of mind. But this cannot be said about people living in institutions as they do not have cordial relation with their children and spouse, they do not feel good about themselves and they do not have peace of mind (Katyal & Sector, Old People are happiest in the family, 1999)

### 3.3.3 Adjustment to Living Arrangements

Living arrangements are an important component of the overall well-being of the elderly. In the Indian culture, the elderly must depend on their family members for economic, social and psychological support. More over among the family members the elderly pass their leisure time happily, especially with their grand children. Sharma (1969) studied the leisure time activities of retired persons and he found that after 55 years of age, barriers of income, caste, education, and marital status cease to exercise their restrictive influence on the allocation of the leisure time activities. He listed 20 leisure time activities and the respondents to rank first 10 important activities; the mean rank order is being reproduced below: reading newspapers, household activities, morning and evening walk, listening to the radio, sitting and gossiping with children-son or grandson, chatting and gossiping with friends, talking with wife, Prayers, inviting and entertaining friends at home, and day sleeping.
Family care is the main source of social protection for the elderly. At the same time, many retirees continue to play parental role of providing economic and other support to their dependents. They further provide emotional support and encouragement to their children for better future. Jayasree (1999) conducted a study with a sample of 100 retired male respondents living with wife and unmarried children and found that 62 per cent share their joy and happiness with spouse, 60 per cent share their problems and sorrows with spouse and 43 per cent of respondents 'always talk' as friends with their children. 69 per cent respondents stated that they manage the family finance by themselves. The study concludes that the respondents are still performing obligations towards children and are also dominating figures in the family. (Jayashree, 1999)

The shift in family structure that is from joint to nuclear has created a need for old age homes to care for the elderly on the one hand and for crèches to care for children on the other. This shows that changing values are putting at risk two of the most vulnerable groups of society. Sinha (1999) expressed that our primary focus should be to provide space for elders in the family because that is their ideal home and their children are the ideal support system. And we have to seek solutions for the problems of the aged at family, social and state level pd to improve respect for the aged in the community which ultimately brings a ray of hope in them regarding their future. Singh (1995) made an attempt to examine, in his study, various problems of the aged in Rural Punjab and how joint families overcome them. He pointed out that hard labour, nutritious food, pollution free environment, local varieties of cereals and pulses which are free from chemicals and fertilizers, with village as a self contained unit aid the security provided by the joint family system to the aged are some of the factors responsible for their long life.

Often the status of the aged and extent of the problems of the aged are judged by their living arrangements and structure of the family. Chakrabarti (1993) conducted a study to trace the views of rural people on ageing process and examines the health, living arrangements and problems of adjustment of the rural elderly. The data was obtained from 61 respondents of 10 villages who are selected purposively. The findings indicated that poverty and under nutrition have compelled them to suffer from illness helplessly. Living in the family of children appears to be the dominant note for aged and mostly prefers to remain with the youngest son. The elderly living in joint family set-up seem to have no problem of adjustment.
Now-a-days in India too as in western countries, old age homes are increasing. Some elderly persons, even though they like to stay in their family, are forced to stay in the old age homes. Mathew (1997) compares the life satisfaction of institutional and non-institutional elderly. A group of 100 cases each from old age homes and community living elderly were selected and were administered the life satisfaction Index-A. Results revealed that life satisfaction was higher among the non-institute living elderly group when compared to the institutional living elderly. Further, life satisfaction was found to have a significant positive correlation with education, age at marriage, number of living children, and number of friends. A negative correlation was noted between age and life satisfaction.

Adjustment to living arrangements in the old age depends on the structure of the family and number of family members among which the elderly lived in their young age. Thanh's (1991) study examined family living arrangement and social adjustment in a sample of 258 elderly Indo-Chinese refugees, 55 years or older in the United States. Data were collected in 1982 from five locations representing the diversity of the Indochinese refugee communities in the United States.

Multiple regression analysis was used in the findings revealed that elderly refugees who lived within the nuclear or extended family had a better sense of social adjustment than those living outside the family context. Elderly refugees who lived in overcrowded households and in households that had children under the age of sixteen experienced a poorer sense of adjustment. Ethnicity had no significant relationship with social adjustment. Finally, among six control variables, age had a significant relationship that indicates that older refugees had a poorer sense of adjustment than their younger counterparts.

3.4 INSTITUTIONS FOR THE SUPPORT OF THE ELDERLY

Urbanization and Industrialization have broken the family structure which was prevailing since ages. Today greater emphasis is laid on efficiency, strength, speed and physical attractiveness. The aged cannot cope with this change. It is a period of decline in mental and physical abilities. There will be more or less complete physical break down and mental disorganization. Sometimes the individual becomes eccentric, careless, absent minded, socially withdrawn and poorly adjusted to the environment around.
Caring for the aged can become a burden even for most dutiful children. In our social situation the responsibility for the care of the aged falls primarily on one member of the family. “Even if the family has the economic resources they most have the skill or the emotional resources to care for the aged” (Kurian, 1970)

### 3.4.1 Home Based and Institutionalized Aged People

Present conditions become vulnerable for the aged because, on one side the traditional welfare institutions are deteriorating and on the other side, the population of the aged in increasing rapidly. There is a big gap between the problems of the aged and the available recourses. The attempt made by government and non-government organizations are nothing compared to the needs. It is also to be noted that the psychological needs of the aged are largely excluded and the conditions of aged becoming increasingly vulnerable, not because of physical disabilities, but due to socio-economic, psychological and health related issues (Raju, 2002). The media takes note of the problems and issues of younger generation, but they neglect the concern of the aged.

Shyam, Yadav et al (2000) examined a sample of 60 elderly in which 30 were institutionalized and 30 were non-institutionalized. They were administered a well-being measure, health questionnaire and a social support questionnaire. The non-institutionalized subjects reported significantly high on depression; and life satisfaction was high in institutionalized subjects.

### 3.4.2 Old Age Homes

Old age homes are primarily to promote health and happiness and to meet the needs and wants of the aged. It provides the basic needs like food, shelter and physical care. It gives a feeling of security and cares for the inmates when they fall ill. It offers an escape from difficult family situations. It provides the aged with companionships who are their contemporaries. There are different types of homes for the aged in India.

1. Luxury Homes - These are run for profit and it provides good and well-furnished accommodation, nursing care and good boarding. It is exclusively for rich people.
Review of Literature

2. Canopus Type Homes - These are profit oriented. They provide only housing accommodations but they do not give any boarding or nursing care. These are again exclusively for rich people.

3. Charitable homes - These are non-profit, religious or sectarian institutions. They provide good and simple boarding and lodging accommodation with physical care.

4. Homes for the aged poor - These are mostly run by the charitable organizations or religious groups. They provide boarding and nursing care. These are generally for the poor.

In Kerala, there are many homes for the age run by different churches and the government. Most of the homes are charity oriented.

All aged people longed for their families and were hunted by fear and insecurity, and were in need of kindness from their children. But their children were in need of kindness from their children. But their children were ashamed to visit them. The study reveals lack of human relationship between the management and the inmates.

The attitude towards institutionalization is a cultural phenomenon. One of the greatest difficulties for the aged is changing the living quarters. This is difficult for the aged because they are too accustomed to their own house.

Most of the aged liked to remain in their own home till death. Change from the home to the institution is one of the difficulties of the old age people. The hospitalization of the aged precipitates physical and mental decline.

In the institution they don’t get much freedom. They have to obey the rules and regulations. The rules and regulations are strict, the routine is rigid, they get up and go to bed early. Cut off from their past environment, after forced to wear a uniform they become depersonalized and are no more than numbers. (Tournier, 1972)

3.5 PSYCHOLOGICAL WELLBEING

Psychological well-being refers to both a theory and measurement scales designed and advocated primarily by Carol Ryff. In her seminal paper, "Happiness is everything, or is it? Explorations on the meaning of psychological well-being." she contrasts this with subjective well-being or hedonic well-being. Ryff attempted to
combine different conceptions of well-being from the ancient Greek to the modern psychological such as theories of Individuation from Carl Jung, Self-actualization from Abraham Maslow and others. Psychological well-being refers to how people evaluate their lives. According to Diener (1997), these evaluations may be in the form of cognitions or in the form of affect. The cognitive part is an information based appraisal of one’s life that is when a person gives conscious evaluative judgments about one’s satisfaction with life as a whole. The affective part is a hedonic evaluation guided by emotions and feelings such as frequency with which people experience pleasant/unpleasant moods in reaction to their lives. The assumption behind this is that most people evaluate their life as either good or bad, so they are normally able to offer judgments. Further, people invariably experience moods and emotions, which have a positive effect or a negative effect. Thus, people have a level of subjective well-being even if they do not often consciously think about it, and the psychological system offers virtually a constant evaluation of what is happening to the person.

The Psychological wellbeing has the following components in it:

- Self Acceptance
- The establishment of quality ties to other
- A sense of Autonomy in thought and action
- The ability to manage complex environments to suit personal needs and values
- The pursuit of meaningful goals and a sense of purpose in life
- Continued growth and development as a person.

Maintaining a sense of psychological wellbeing and continuing to be socially engaged in later life is an important part of growing older in a healthy way. Illness and chronic diseases reduce the sense of wellbeing. Wellbeing is also related to some extent to personality of an individual.

Ryff’s defined each aspect according to how that concept should be achieved. First, self-acceptance is a positive attitude toward the self. It is the acknowledgment and acceptance of multiple aspects of self, including good and bad qualities. It is the positive feeling about past life. Second, positive relations with others refer to warm, satisfying, trusting relationships with others. It is about the individual’s concern about
the welfare of others. It is the capability of strong empathy, affection, and intimacy. It is the understanding of the ‘give and take’ of human relationships. Third, autonomy refers to individuals’ self-determining and independent. It is the ability to resist social pressures to think and act in certain ways. It is the regulation of behavior from within. It is the evaluation of self by personal standards. Fourth, environmental mastery is the sense of mastery and competence in managing the environment. It is the controlling of complex array of external activities. It is how individuals make effective use of surrounding opportunities. It is the ability to choose or create contexts suitable to personal needs and values. Fifth, purpose in life refers to a person’s goals in life and a sense of directedness. It is the feeling that there is meaning to present and past life. It signifies that a person holds beliefs that give life purpose. It refers to the occurrence of aims and objectives for living by a person. Sixth, personal growth is the feeling of continued development. A person must see self as growing and expanding. It is openness to new experiences. It is the sense of realizing one’s potential. A person sees improvement in self and behavior over time. It is the changes in ways that reflect more self-knowledge and effectiveness. (Ryff, 2010)

The psychological wellbeing of the residents in the care home is analysed using the six dimensions namely Autonomy, Environmental Mastery, Personal Growth, Positive relation with others, Purpose in Life and Self Acceptance.

![Diagram of Psychological Wellbeing](image-url)

Figure 3.2: Diagrammatic Representation of the Psychological Wellbeing
3.6 INTERVENTION RESEARCH IN SOCIAL WORK

Intervention research entails the empirical study of professional intervention behavior in the human services. It may involve acquiring knowledge about the process and context of intervention, or it may focus on creating or enhancing the fundamental methods and tools of intervention. It is an emergent area of research that is not as highly developed as more-established methodologies. Rothman and Thomas (1994) were the first to develop intervention research model in Social Work.

Intervention researches are basically used to measure the effectiveness of any programme given to a group or individual. The intervention research helped the worker to design, evaluate and redesign the helping process to suit best for the group it is implemented. The areas were the intervention research process is helpful for the elderly included the exercise of choice and control; economic, social and psychological wellbeing; improved quality of life; making positive contribution and improved health.

3.7 NEED FOR INTERVENTION STUDY AMONG THE INSTITUTIONALIZED ELDERLY

An overview of existing researches indicates that, most of the studies on geriatric social work are either explorative or descriptive. Majority of these studies emphasized importance of social work intervention for making the old age grace.

In general researchers conducted studies among the institutionalized elderly were concerned about the voice of the inmates. Reviews on institutionalization continue to affirm that the senior care homes are an unsatisfactory option for the elderly who cannot remain with their own families. Analysis highlighted the negative impact of the institutional care.

It is significant from the reviews from the biological, social and psychological dimensions, importance of intervention to this group have not investigated together by most of the researchers. In the absence of such vital data, the problems of the inmates in senior care home need to be improved.
3.8 INTERVENTION RESEARCHES IN THE FIELD OF ELDERLY CARE

There are a number of intervention researches in the field of Geriatric. These researches were spread across the different aspects of elderly life. The major studies were located in the spheres of Mental Health, Nutrition, Geriatric Care and Support, Suicidal Prevention and so on.

3.8.1 Intervention Study in the field of Physical Health

The intervention research titled "Confronting challenges in intervention research with ethnically diverse older adults: the USC Well Elderly II Trial" conducted by Jeanne Jackson and his colleagues included 460 older adults, administration of the intervention, commitment to the plan for assessment, and establishment of a large computerized data base. The background of the study was that the Community-dwelling older adults are at risk for declines in physical health, cognition, and psychosocial well-being. Their enactment of active and health-promoting lifestyles can reduce such declines.

“The Therapeutic Design of Environments for People” by Day K, Carreon D and Stump C came up with the following findings. Dining in small rooms nearby the living area reduces aggression and promotes better eating because residents have less time for problems to occur in passage between living and eating areas. Regarding the toilets, making toilets visibly accessible to residents increases the frequency of their use and also found that exposure of residents to bright light regulates circadian rhythms and improves their sleep. In order to improve their independence in dressing, they suggested that the sequential order of dressing increases their clothing independence. (Day, Carreon, & Stump)

“Effective Behavioral Interventions for Decreasing Dementia-Related Challenging Behavior in Nursing Homes,” by Allen Burge et al., found that the interventions that address this topic include staff rewarding non-wandering behavior and various environmental strategies. These strategies include providing a secure place to wander, which reduces the consequences of doing so residents socialize more when they are involved in small group activities; a small group is defined as having eight or fewer participants (Allen-Burge, Steves, & Burgio, 1999).
3.8.2 Intervention Study in the field of Psychological Health

A Multi component Intervention to Prevent Delirium in Hospitalized Older Patients conducted by studied 852 patients 70 years of age or older who had been admitted to the general-medicine service at a teaching hospital. Patients from one intervention unit and two usual-care units were enrolled by means of a prospective matching strategy. The intervention consisted of standardized protocols for the management of six risk factors for delirium: cognitive impairment, sleep deprivation, immobility, visual impairment, hearing impairment, and dehydration. Delirium, the primary outcome, was assessed daily until discharge. Delirium developed in 9.9 percent of the intervention group, as compared with 15.0 percent of the usual-care group. The overall rate of adherence to the intervention was 87 percent, and the total number of targeted risk factors per patient was significantly reduced. Intervention was associated with significant improvement in the degree of cognitive impairment among patients with cognitive impairment at admission and with a significant reduction in the rate of use of sleep medications among all patients. Among the other risk factors, there were trends toward improvement in immobility, visual impairment, and hearing impairment.

The studies were conducted among the elderly living with Dementia and the effect of the literature based intervention. A research study titled “Get Into Reading model is in its early stages of development” observed and reported the outcomes for participants have included their feeling of relaxation and positive about positive about things’ after taking part in the readers group. They started valuing an opportunity and space to reflect on life experience by memories or emotions evoked by the story or poem in a supportive environment. (Robinson, 2008).

A review assessed public health interventions that promoted mental well-being among adults aged 65 or over. This review evidenced positive effects of some types of psychosocial interventions such as exercise interventions, group-based health promotion and various psychological interventions. (Windle, Hughes, Linck, Morgan, Burholt, & Tudor, 2007)

“Psychosocial interventions for the promotion of mental health and the prevention of depression among older adults”, a study by Anna K. Forsman, Johanna Nordmyr and Kristian Wahlbeck came up with the finding that physical exercises,
skill training, group support, reminiscence and social activities are essential components of any intervention targeted at the psycho social aspect of the elderly.

Guideline Psychosocial Interventions for People with Severe Mental Illness suggested by the German Association for Psychiatry, Psychotherapy and Psychosomatics (DGPPN) recommended that the elderly with components of the psychosocial intervention for the elderly should necessarily included the elements like Therapeutic relationship, Empowerment, Shared decision-making, Milieu therapy and therapeutic community and Recovery as a target of psychosocial interventions. The individual intervention must be focused on the Psycho education for patients and carers, peer-to-peer support, Social skills training, Arts therapies, Occupational therapy and Sports and movement therapies.

Conclusion

There were a number of research studies in the field of elderly and most of these studies are found to be sociological in nature as these studies are focused on to the analysis and descriptive in nature. The real essence of the intervention research is that apart from the analysis and description of a problem, it is designed in such a way to suggest a remedial package and also to measure the effect that the package provides after its implementation. Thus the implementation and the evaluation make the intervention research a unique one. A method oriented intervention package is followed in the present research study. The study included four steps: a pre assessment of psychological wellbeing among the residents in the selected care home, designed an implementation plan, implemented the intervention plan on the residents using Social Case Work Method and post assessment of the psychological wellbeing to measure the effectiveness of the intervention package.
DATA ANALYSIS
AND
INTERPRETATION