Chapter I

Introduction
"For the last six years I have been afflicted with the incurable complaint which has been made worse by incompetent doctors........... Though endowed with a passionate and lively temperament and even fond of the distractions offered by society, I was soon obliged to seclude myself and live in solitude. If at time, I decided to ignore my inferiority, alas, how cruelly was I then driven back by the intensified sad experience of my poor hearing...? There can be no relaxation in human society, no refined conversation, no mutual confidences. I must live alone......... I must life live an outcast....... I can overcome by a burning anxiety, a fear that I am running the risk of letting people notice my condition...... I was on the point of putting an end to my life....... The only thing that held me back was my art" (Beethoven, 1802)

This piece of note speaks a lot about Beethoven’s miseries. Poor hearing ruined his personal and social life. The idea of present research is ignited by miseries and sad experiences of hearing impaired individuals. The prevalence of hard of hearing and deaf individuals has been reported in the census of various countries.

**HEARING IMPAIRED CENSUS:**

The United States Census of the deaf- mute population in 1920 compiled 3,526 histories in 1928. Congenital deafness accounted for 38.6 per cent of the hereditary or prenatal hearing loss, and acquired deafness was found in 61.4 per cent of the cases. In the more specific breakdown scarlet fever accounted for 17.6 percent, meningitis 23.9 percent, measles 5.7 per cent, and typhoid, fever, whooping cough, diseases of the ear, abscesses of the head, and unknown etiological disorders accounted for 58.6 per cent. All the studies concur in
pointing out that although no single etiological factor accounts for deafness, early
detection diagnosis and treatment is of the greatest importance.

The prevalence of hard of hearing and deaf children and youths in United States
may be derived from data of national survey, 1971 and from a demographic
study from Gallaudet College, 1971. In the former study conducted in the regular
schools of this country. Data was collected on 38,568 samples of males and
females in grades 1 through 12. It may be noted that 170/1000 had unilateral
(one ear) hearing loss and 41/1000 bilateral (two ears) impairment.

In all, 211/1000 or about one in every five subjects suffers a hearing loss
in one or both ears that is at least medically significant. Seven children per
thousand have bilateral auditory insensitivity of mild to profound loss; they
constitute the population usually referred to as those having educationally or
socially significant losses. However, a Gallaudet demographic study indicated
that an additional 42,000 hearing impaired individuals were enrolled in the
special schools and classes for the deaf and hard of hearing throughout the
United States, Demographic Study. The data were available from an estimated
80 per cent of these students.

Schein and Delk (1974) released prevalence of hearing impairment in U.S.
and found 13.6 million people with hearing impairment, this number includes
410,522 individuals who cannot hearing and understand speech and who
become deaf before 19 years of age. When the age of onset disregarded, the
number increased to 1.7 million deaf persons. Deafness according to Schien and
Delk was found to be higher in urban areas, higher in North Central region as
compared to Northeast, South and West. In addition to that many more deaf people were found in the birth to 17 year of age range.

Markides et al. (1979) studied prevalence of hearing impairment in adults in United Kingdom, found the same to be 6% in Denmark, 6% in Sweden and 6% in U.K. The number of adults using hearing aid amplification was 3% in Denmark, 1.8% in Sweden and 2.3% in U.K. Number of new adults issued with hearing aids every year was 12,000 in Denmark; 14,000 in Sweden and 100-130,000 in U.K.

David et al. (1989) conducted a study in Canada and found that there were approximately 131,000 deafened adults (Canadian Coordinating Council of Deafness) 334 out of the total population of 25 million.

According to Thomas (1981), the prevalence estimate, whether or not reliable is highly misleading in that acquired hearing loss is age related D’ Souza et. al. (1975) found that nearly 6 per cent of people between 40 and 64 years of age have a significant hearing loss, while for those over 70 years of age the proportion may be well over 60 per cent.

Chukuezi (1991) observed that profound and total hearing loss is a health hazard of concern in the developing countries. This is because of the fact that facility for proper diagnosis and the resources for improving the education and psychological problems of the victims are scarce and limited. In a prospective two year study of this hidden handicap in Owerri, Nigerian, 128 patients were found to be totally deaf. Sixty six males and sixty two females were affected. The peak prevalence was amongst those below 10 years of age with 80 patients.
In the work program of ‘Action concerning the disabled’, it was estimated that there were 450 million disabled persons in the world. Eighty percent of them live in developing countries, mostly in the poorest communities of Asia, Africa and Latin America. This has been adopted by U.N. General Assembly in 1981.

Census in India includes surveys done by Advani (1967) presented in XVI round of National Survey and estimated the incidence of deafness to be 124 per 1, 00,000 persons. The Indian Census of deaf and mute estimated the deaf persons approximately 2, 00,000. Lal and Seal (1949) and Seal (1956, 1958) carried out General Health Survey in rural areas and revealed that prevalence of deafness was ranging from 0.17% to 0.88 %.

Mishra et al. (1961) in a survey on school going children in Lucknow, where they examined 1,390 children between the age range of 3 to 12 years. On the basis of the criteria specified by the Board of Education Committee, mild deafness was noted in 31.6% cases; moderate deafness in 2.9% cases, conductive deafness due to the middle ear diseases was seen in 14.9% children. It was less common in children higher socio-economic status (9.4%) than those coming from lower strata (20.2%). They also observed that moderate hearing loss was more common in older children, implying there by that deafness tends to increase with age in children having ‘chronic supportive otitis media’ (CSOM).

Kapoor (1965) reported the prevalence of deafness in school going children to be 16.25% to 18.6% from Vellora area. Jain (1967) surveyed 4,720 schools going children and observed that a large number of children i.e. 1,720 required medical attention. Emerich (1971) after a study on 318 children
surveyed, found 12.9% cases of ear discharge, whereas conductive deafness was noted in 10.4% of the cases due to CSOM.

Mann et al. (1976) in a door to door survey at village Raipur Rani in the State of Haryana examined a sample of 1,720 persons of all ages and pure tone audiometry was done. 4.20% in general population conductive deafness, 2.84% had sensory neural deafness and 0.12% had congenital deafness. Majority of these had moderate degree of deafness.

In a study conducted by Mann et al. (1981) in a door to door survey, examined 1,310 individuals in the general population at Village Mansa (a high fluoride belt area of Punjab) having a fluoride content in the drinking water as 2.1 PPM, reported deafness in 12.07% of the cases, conductive deafness was 7.88%, sensory neural deafness 4.19%. The incidence of sensory neural deafness was noted to be higher in the high fluoride areas, as compared to low fluoride area (Raipur Rani).

A Collaborative study on prevalence and etiology of hearing impairment by ICMR (1983) was carried out in rural as well as urban population of Calcutta, Madras, New Delhi and Trivandrum by Dr. Santosh Kacker, Dr. S. Kameswaran, Dr. A.L. Mukerjee and Dr. Sukumaran. The study revealed prevalence of deafness in rural and urban area to the 10.7% and 6.6% respectively. Sensorineural loss was found to be more common in urban population, whereas the conductive loss was more common in rural population. Congenital sensorineural hearing impairment was 0.8% in rural area and 1.7% in urban population presbycusis was to be commonest cause for sensorineural loss.
Bilateral deafness was significantly higher compared to unilateral loss. Similarly, majority of the patients had either moderate or mild degree of hearing loss.

In an ‘audiological survey’ conducted by Tuli (1988) on 2,000 children of whom half belonged to a low socio-economic status and the other half to a high socioeconomic group. The incidence of hearing loss was found to be 12.25%. All the cases had conductive loss, whereas only one case had sensorineural loss. It was noted that incidence of conductive deafness was 16.39% at the age of 6 years, whereas it fell to 6.56% by the age of 14 years. More than 90 of the children fell in the category of mild to moderate hearing loss.

Mehra and Mann(1989) in collaboration with the Haryana Welfare Society for the handicapped children, in Pinjore Block of Ambala District, Haryana State for “Early detection of hearing and speech impairment in children”. The age of the children ranged between 0 to 12 years. In Pinjore Block, there were 117 villages with a total population of 68,105. Out of these 20,506 were children between the age of 0-12 years, who underwent detailed ENT examination, pure tone audiometry and impedance, 1,117 children i.e. 5.45% were found deaf, 5.08% had conductive deafness, 0.29% had sensorineural deafness and 0.08% had mixed loss. 940 out of 1,117 cases were having moderate degree of hearing loss (4.63%).

Mehta et al. (1990) conducted an epidemiological survey on the prevalence of deafness at Jalandhar, Punjab. In this they examined 1,260 patients. They found the incidence of 5.2% of deafness.
Mann and Sharma (1992) in a survey conducted by them entitled, “Early detection of middle ear diseases in school going children”, where the age ranged between 7-12 years of 60 schools of the Union Territory of Chandigarh (40 urban and 20 rural) were examined in specially prepared sound treated and air conditioned van. In this a total of 4,489 children (Rural, 1,922, Urban 2,567) were examined. Pure tone and impedance audiometry were done there and then. It was found that the deafness existed in 663 out of 4,489 children i.e. 14.77%. Amongst rural children the conductive deafness was noted to be 26.48%, whereas the same in urban children was 6.0%. Most of these children had moderate degree of deafness.

According to Census of India 2001 Hearing disabled in India 1261722 i.e. 5.76% and Disabilities by Sex is found to be females 673797 (53.40%) and males 587925 (46.60%). About 82-85 percent hearing-impaired persons acquired the impairment after the age of 45 years (Census of India 2001).

As it is evident from the census, Hearing loss is one of the most common health problems among the populations of the industrialized world. Besides reduced ability to enjoy music and other sounds that we appreciate, hearing loss may produce social isolation, distorted communication, and, in some cases, stigmatization, all of which can affect mental health and quality of life. Therefore the high occurrence of hearing loss indicates that it may be a major source of impaired mental health in the population.

QUALITY OF LIFE

Quality of life is considered to be the central aspect of human life and welfare. It’s an important concern and the ultimate goal of modern life which
human beings strive to achieve throughout their lives and are strongly motivated to attain it. Till date there exists no consensus to what quality of life actually is. It is often taken as the behavioral process by which humans maintain balance among their various needs or between their needs and the obstacles of their environments. It also has been defined as the value assigned to duration of life as modified by the impairments, functional states, perceptions and social opportunities that are influenced by disease, injury, treatment or policy (Patrick & Ericson, 1993), a personal statement of the positivity or negativity of attributes that characterize one’s life (Grant et al., 1990).

Quality of life depends upon the degree and the extent to which the person feels he is leading a meaningful life. It consists of two components. The first is a physical aspect which includes health, diet, as well as protection against pain and disease. The second component is psychological in nature. This aspect includes stress, worry, pleasure and other positive or negative emotional states. It can refer to aspects of a person’s well-being (physical, psychological, social), as well as aspects of the environment and a person’s standard of living (Harding, 2001).

The term ‘quality of life’ was originally coined in the USA in the post-war period to describe the effect of material privileged circumstances on people’s lives and later also included education, health and welfare, economic and industrial growth. In the sociomedical literature, quality of life has been equated with a variety of terms, including life satisfaction (Brown, Rawlinson & Hilles, 1981), self-esteem (Ziller, 1974), well-being (Fletcher & Bulpitt, 1985), happiness (Shinn & Johnson, 1978), health (Frank-Stromborg, 1984), the value
According to Schalock (1989), the interest in quality of life has come because of a shift in focus away from medical approach to social approach i.e. the belief that scientific, medical, and technological advances alone would result in improved life towards an understanding that personal, family, community, and societal well-being emerge from complex combinations of these advances plus values, perceptions, and environmental conditions; also the normalization movement that stressed community-based services to measure the outcomes from the individual’s life in the community. Reports of a Medline search on the term Quality of Life also indicate a surge in its use from 40 citations (1966-1974) to 1907 citations (1981-1985) (Albrecht, 1994).

The Constitution of the World Health Organization (WHO) in 1991 defines health as "A state of complete physical, mental, and social well-being not merely the absence of disease ...” It follows that the measurement of health and the effects of health care must include not only an indication of changes in the frequency and severity of diseases but also an estimation of well being and this can be assessed by measuring the improvement in the quality of life related to health care. The World Health Organization Quality of Life (WHOQOL) Group (Bonomi, Patrick, Bushnell & Martin, 2000; WHOQOL Group, 1994, 1995) defined it as "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.” It is a broad ranging concept affected in
a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment.

Another view of quality of life is the individual’s estimation of one's happiness and what maximizes it. Aristotle in Eticana nicomahica used for the first time the term “eudaimonia”, Greek for “happiness”. He insisted that the highest good for human beings is happiness and every action performed by them is to pursue happiness. Aristotle said that human action is always aimed at some end or good. This "good" may not be viewed as a good action or any good by others, but for the doer of the good action, the activity will be perceived as good and that it will bring a favorable outcome.

Quality of life is inevitably subjective and dependent upon individual perceptions. It may also be defined in macro (societal, objective) and micro (individual, subjective) terms (Rosenberg, 1992; Bowling, 1995a; 1995b; 1996; Bowling and Windsor, 2001). The former includes income, employment, housing, education, other living and environmental circumstances. The latter includes perceptions of overall quality of life, individual’s experiences and values, and has included related, proxy indicators such as well-being, happiness and life satisfaction. Thus, it is a complex collection of interacting subjective and objective dimensions (Lawton, 1991).

Dimensions of quality of life involve areas of behavior that are measured in form of subjective and objective well being. Subjective well-being reflects the difference, the gap, between the hopes and expectations of a person and their
present experience. Human adaptation is such that life expectations are usually adjusted so as to lie within the realm of what the individual perceives to be possible. This enables people who have difficult life circumstances to maintain a reasonable quality of life (McCall, 1975). The subjective domains consist of physical functioning (the capacity to perform physical tasks); occupational functioning (quality of life should focus on the ability to perform multiple essential roles and not just on return to work); perceptions about health status (health perceptions are personal beliefs and evaluations of general health status, they are the result of integration of information and feelings about health and health limitations from the self, the medical system, the family and the society); psychological functioning and social functioning;

QOL in the objective dimension is defined as ‘The individual's command over resources in the form of money, possessions, knowledge, mental and physical energy, social relations, security and so on, through which the individual can control and consciously direct his living conditions’ (Erikson, 1993). It includes health status (with diagnostic tests); psychopathology, socio-economic status, social support (number and quality of the contacts). Delhey (2002) said that objective living conditions and subjective evaluations of personal life circumstances are just two sides of the same coin, and both tend to be included as indicators of life quality (Hudler & Richter, 2002).

Browne et al. (1997) differentiated between standard-needs approach and the psychological process perspective. The first of these is being described on the assumption that needs rather than wants are central to quality of life and
these needs are common to all, whereas the psychological process approach considers quality of life to be constructed from individual evaluation of personally salient aspects of life. Muldoon et al. (1998) provided an alternative approach based on the degree to which the domains being rated can be objectively rated to be validated. They argued that quality of life measures should be divided into those that assess objective functioning and those that subjective well-being.

Majani et al. (1999) stated that "objective measures of quality of life often bear little relationship to life satisfaction, whereas subjective indicators are often found to correlate highly with a global sense of well-being, as well as being more meaningful and sensitive barometers of quality of life". Accordingly, individual's subjective satisfaction should always be included in routine assessment and clinical interventions; they are a useful source of information on individuals' distress and psychological resources.

Flax (1972); Rogerson et al.(1989); Sherman & Schiffman (1991); Muntaner & Lynch (2002) proposed different indicators of quality of life include standard of living, health and longevity, housing and neighborhood characteristics. These are typically measured with indicators of cost of living, mortality rates, health service provision, education levels, neighborhood structure and density, socio-economic structure and indicators of inequality and crime in the neighborhood. Quality of life is additive, reflecting the sum of one's experience, adjustment and satisfaction in several domains of life (Inglehart & Rabier, 1986). The objective approach is essentially a need based approach, which assumes that there are basic needs in society, and that satisfying these
needs determines people’s well-being (Delhey et al., 2002). Burholt (2001) has emphasized the need for a multidimensional approach. Heylighen & Bernheim (2000) have defined the dimensions that make up well-being and quality of life, including happiness, as the sum of mainly relative subjective factors but with a small contribution from objective factors.

Veenhoven (2000) distinguished between opportunities (chances) for a good life and the good life (outcomes) itself, and postulated four categories of quality of life: i) Livability of the environment (environmental chances/social capital); ii) Life-ability of the individual (personal capacities/psychological capital); iii) External utility of life (a good life must have an aim other than the life itself, or higher values); iv) Inner appreciation of life (inner outcomes of life/the perceived quality of the life). Each area of quality of life can also have knock on effects on the others. Thus, quality of life is multidimensional and its parts affect each other as well as the sum. It is made up of both positive and negative experiences and effects, and values and self evaluations of life may change over time in response to life and health events and experiences.

Ventegodt et al. (2003) means quality of life (QOL) a good life and a good life is the same as living a life with a high quality. All great religions and philosophies have a notion of a good life ranging from saying that a good life is attained by practical codes of conduct to request to engage in a certain positive attitude to life or to search into the depths of own being. Notions about a good life are closely linked to the culture to which one belongs. When people in a western culture view a good life, the cultural conditioning makes them tend to
include happiness, fulfillment of needs, functioning in a social context, etc. It is multi-dimensional and includes loving, being and living in good health. Some researches suggest that there exists a relationship between human value orientations and the quality of life (Ventegodt, Merrick, Andersen, 2003; Hunt, 1997).

Individuals with chronic disease define quality of life primarily in terms of positive relationships, recreational activities, a sense of security and meaning in life, although they are also concerned with the ability to care for them and function independently (Burckhardt, Woods, Schultz & Ziebarth, 1989). Arnold (1991) proposed that quality of life assessment in frailer, older people should include physical functioning and symptoms, emotional, behavioral cognitive and intellectual functioning, social functioning and the existence of social support, life satisfaction, health perceptions, economic status, ability to pursue interests and recreation, sexual functioning, energy and vitality. Darnton-Hill (1995) also emphasized the importance of income in determining life expectancy and quality of life in older age.

The most frequently reported associations with both well-being and quality of life in older age are good health and functional ability, a sense of personal adequacy or usefulness, social participation, the existence of friends and social support, and level of income etc. (Maddox 1963; Lowenthal & Haven 1968; Markides & Martin, 1979; Kushman & Lane, 1979; Usui et al., 1985; Bowling et al., 1996; Breeze et al., 2001). Clinical assessment of health-related quality of life in persons with disability has the potential to improve care by assessing and monitoring treatment effects, enhancing communication between patient and
provider, and tracking changes in functional status over time. It has become a major component in clinical decision; it has enabled researchers and policy makers to see the trends in the well-being of populations beyond the disease level, to evaluate the far ranging effects of health and social policies, and to determine how to allocate resources.

**Theoretical Models of Quality of Life:**

The main models of quality of life in the literature are summarized below:

**Multidimensional Model: Lawton (1983)**

According to Lawton (1983) quality of life is ‘the multidimensional evaluation, by both intrapersonal and social-normative criteria, of the person–environment system of an individual in time past, current and anticipated’. Dimensions were both objective and subjective dimensions i.e. objective (objective environment, behavioral competence) and subjective (perceived quality of life, psychological well-being) dimensions. His scheme is characterized by socio-normative approaches in the objective dimensions and individualistic approaches for the subjective dimensions. In his conceptualization the domains form a hierarchy so that objective dimensions should be treated as antecedent to subjective ones. Lawton’s simple taxonomy of quality of life according to types of dimensions, domains and instruments is as follows:

**Dimensions:**

**Objective**, on the basis of observations external to the individual such as standard of living, income, education, health status and longevity.

**Subjective**, on the basis of psychological responses by the individual such as life satisfaction, happiness and self-rating
Domains:

Physical health, general (e.g. self-rated health) or disease-specific
Psychological (e.g. subjective well-being, happiness, life satisfaction)
Social (e.g. social relationships and networks)

Instruments:

Generic, refer to instruments which are common to all participants whose quality of life is being measured, as opposed to Idiopathic which are tailored for individual participants.

Hierarchical or Spill over Model: Sirgy (1998)

Sirgy said that spill over can be either vertical i.e. in either direction so that people who are satisfied with their standard of living are likely to be satisfied with their lives overall or overall satisfaction may make a person more predisposed to evaluate their standard of living more favorably or horizontal i.e. the domains which influence overall satisfaction can affect each other e.g. satisfaction with material areas of life might influence satisfaction with relationships with family. While older people report being satisfied with their lives overall, longitudinal studies have reported that the best predictor of later life satisfaction is earlier life satisfaction (Palmore et al., 1985; Palmore & Kivett, 1977).


Subjective well being consists of people’s own evaluations of their lives either cognitively i.e. specific or overall life satisfaction or affective i.e. feelings of joy (Andrews & Withey, 1976). These concepts are distinct are inter-related suggesting the existence of a higher order construct of subjective well being (Diener & Lucas, 2000). Quality of Life (QOL) is the extent to which objective
human needs are fulfilled in relation to personal or group perceptions of subjective well-being. Human needs are basic needs for subsistence, reproduction, security, affection, etc. The relation between specific human needs and perceived satisfaction with each of them can be affected by mental capacity, cultural context, information, education, temperament, and the like, often in quite complex ways. And the relation between the fulfillment of human needs and overall subjective well-being is affected by the inputs individuals, groups, and cultures give to fulfill each of the human needs relative to the others. People are routinely engaged in evaluating themselves in relation to the life domains they consider to be of relevance, and important, to themselves (Diener & Suh, 1997). Gurin et al. (1960); Bradburn & Caplowitz (1965); Andrews & Withey (1976); Campbell et al. (1976); Bigelow et al. (1982); Rosenwaike (1985); Day (1991); Roos & Havens (1991); Suzman et al. (1992); Garfein & Herzog (1995) also proposed that subjective wellbeing includes life satisfaction and psychological well-being, morale, individual fulfillment, happiness, measured using indicators of life satisfaction, morale, balance of affect, and self-worth.

**Need Based Psychological Model: Hörnquist (1982)**

Hörnquist model based on human needs includes objective circumstances (such as housing, security, food, warmth) and opportunities for self-actualization, reminiscent of Maslow’s (1954; 1962) theory of human need (physiological, safety, security, social and belonging, ego status, self-esteem), measured by indicators of the individual’s subjective satisfaction with the extent to which these have been met (Hörnquist, 1982; Lehman, 1988; Bigelow et al., 1991). Human needs are the foundations for quality of life, and hence quality of life can be
defined in terms of human needs and the satisfactory fulfillment of those needs (e.g. physical, psychological, social, activity, marital and structural). Basic needs satisfaction is, of course, of importance to vulnerable groups in society. Satisfaction of needs for personal care, food, safety were also among older people’s top five priorities for inclusion of outcome measurement of social care, the others being social participation and involvement and control over daily life (Netten et al., 2002).

**Life Satisfaction Model: Diener et al. (1985)**

Life satisfaction is an assessment of one’s life, namely a comparison reflecting some perceived discrepancy between one’s aspirations and achievement. Diener et al. (1985) defined life satisfaction as a cognitive judgmental process dependent upon a comparison of one’s circumstances with what is thought to be an appropriate standard. Thus, greater life satisfaction is achieved if there is little discrepancy between perceived life circumstances and achievements and one’s standards of comparison. It is a long-term cognitive appraisal of past, present and overall life and is relatively stable in middle to old age (Campbell, 1981; Bowling et al., 1996; Campbell et al., 1976). The classic literature on quality of life during the 1970s and 1980s reported that overall life satisfaction was predicted by evaluations of satisfaction with different domains of life, such as health, work, and relationships with family, friends, community, and standard of living. It was therefore accepted that life satisfaction is a social indicator of quality of life (e.g. Andrews & Withey, 1976; Campbell et al., 1976).

**Domains based Model: Testa & Simonson (1996)**
Health related quality of life refers to the physical, psychological and social domains of health that are unique to each individual (Testa & Simonson, 1996). Each of these domains can be measured by the objective assessments of functioning or health status and the subjective perceptions of health. The objective dimension reflects health status of individual based on an objective evaluation of his functioning. The subjective evaluation is the individual’s perception of their physical, psychological and social functioning. Both dimensions contribute to better understanding of individuals overall health related quality of life. The physical domain includes ambulation, mobility, fatigue and ability to perform daily activities. Depression, anxiety, emotional wellbeing, cognitive status falls under psychological domain. The social domain includes work function, role functioning, personal relationship. Again these variables can be assessed using objective and subjective perspective.

Fig A: Health related quality of life model
It is a broad-ranging concept affected in a complex way by the person’s physical health, psychological state, and level of independence, social relationships, and their relationships to salient features of their environment. Thus, quality of life is inherently a dynamic, multi-level and complex concept reflecting objective, subjective, macro-societal, and micro-individual, positive and negative influences interacting together (Lawton, 1991).

**Social comparisons and expectations theory** includes Gap theory, traditionally known as relative deprivation theory. **Gap relativity model:** Krupinski (1980). Quality of life is defined as the discrepancy or gap between desired and actual circumstances. Gap relativity models are based on a person’s appraisal of their life in terms of past experience, present circumstances and aspirations for the future - the individual’s achievement of their current and past expectations, hopes and aspirations, particularly in relation to social comparisons with others (Calman, 1984; Michalos, 1986; Garratt & Ruta, 1999). The key assumption is that people whose life circumstances are closely matched with their aspirations will assess their life as much better than those for whom there is a large gap between actuality and aspirations.

**Multiple discrepancies theory:** Michalos (1986) gave six types of ‘gap theoretical explanations’. These were:

- **‘Goal-achievement gap theory’** i.e. satisfaction and happiness are a function of the perceived gap between what one has and what one wants.
‘Ideal-real gap theory’ which states satisfaction and happiness are a function of the perceived gap between what one has and what is ideal, preferable or desirable.

‘Expectations reality gap theory’ based on personal likelihood or probability matched against reality.

‘Previous-best comparison theory’ states the perceived gap between what one has now and the best one had in the past.

‘Relative deprivation theory’ also known as ‘reference class theories’ and ‘social comparison theory’ states the gap between what one has and what some relevant other person or group has.

‘Person-environment fit theory’ or ‘congruence theories’ is the assessment of the gap between some personal attributes of a person and some aspects of that person’s environment.

Health and functioning models: Good levels of physical and mental functioning and general health status have long been associated with perceived well-being, morale and overall quality of life, (Bowling, 1995; Bowling & Windsor, 2002; Bowling et al., 1996; 1999; Breeze et al., 2002). According to The World Health Organization’s (1947) health-related quality of life is a state of complete physical, mental and social well-being. McKevitt et al. (2002) discussed this model typically based on measures of broader health status, depression scales and scales of physical functioning (activities of daily living and instrumental daily living) as patient/client- based outcome indicators of health and social care interventions. According to Bowling (2004) the concept of health related quality
of life (HRQoL) has been based on pathology, Disease model of ill-health and dependency, and has focused on the impact of health status and disease and measurement of physical and mental decline, disability, and impaired role functioning. The emphasis has been on functional status. Functional status is the degree to which a person is able to perform socially allocated roles free of physical or mental health related limitations.

**Social health models** measured QOL with indicators of social networks, support and activities; integration within local community (Bowling, 1991; 1994; Bowling & Grundy, 1998). **Social cohesion and social capital Model of Putnam (2000)**, include societal, environmental and neighborhood resources (including those which facilitate reciprocity and trustworthiness arising from social connections between people), fostered by the availability and type of community facilities and resources. Measures include objective indicators of indices of crime, pollution, cost of living, shopping facilities, access to areas of scenic quality, cost of owner occupied housing, education facilities, policing, employment levels, wage levels, unemployment levels, climate, access to indoor/outdoor sports, travel to work time, access to leisure facilities, quality of council housing, access to council housing cost of private rented accommodation (in order of perceived order importance to people’s quality of life(Rogerson et al., 1989; Flax, 1972; Rogerson, 1995). Other indicators include access to convenient and affordable transport and the general characteristics of neighborhood. Subjective indicators include public values, perceptions and levels of satisfaction with area of residence, its facilities, transport, travel to work time, and perceptions of
neighborliness and safety from crime (Rogerson et al., 1989; Cooper et al., 1999).

**Environmental model: Schaie et al. (2003)**

They studied aging in one’s place of residence and the importance of designing enabling internal and external environments in order to promote the independence and active social participation of older people. The area of environmental gerontology included psychology, geography, architecture, health and social care, and related disciplines.

**Integrative model:**

Quality of life is represented as the interaction of **human needs** (Subsistence, Reproduction, Security, Affection, Understanding, Participation, Leisure, Spirituality, Creativity, Identity and Freedom), and the **subjective perception** ((happiness, utility and welfare for individuals and/or groups) of their fulfillment, mediated by the **opportunities available** to meet the needs (Built, Human, Social and Natural Capital and time).

![Fig. B: Integrative model](image-url)
Thus, it is a multidimensional construct emerging from the evaluation of multiple needs on the individual, community, national, and global levels. Each need is assumed to contribute to different degrees to overall QOL. Thus, it is a function of the degree to which each identified human need is met, which is called “fulfillment” and the importance of the need to the respondent or to the group in terms of its relative contribution to their subjective well-being. Evaluation of needs also varies in different segments of the society e.g. individuals having special needs like segment of the society having physical, mental, hearing, vision impairment etc. Hearing impairment is experienced interpersonally, because vocal communication is most common mode in people’s social interaction and loss of hearing impacts on such interaction drastically. It has been observed that only after a succession of complaints by others that a person with hearing impairment will acknowledge their hearing problem (Hétu, 1990). In this research hearing impairment individual’s quality of life has been taken into consideration.

**HEARING IMPAIRMENT**

Communication is an essential need for any person, as it allows acquisition of knowledge and experiences by helping people to remain active in social and family life. When communication is damaged, it can cause personal frustration leading the individual to a self isolation and depression, distance to family and social activities; low self-esteem; loneliness; depression; irritation (Bess, 2000; Bance, 2007; Boechat, 2003; Ferreira, 2006). All these problems definitely affect the individual’s life quality (Bogardus, 2004; Yueh, 2007). Proper communication ability is necessary to have an effective integration (Teixeira, 2005).
Different Parts of the Human Ear:

**Outer Ear:** The outer ear or external ear is a visible portion of the ear, which serves as a protective organ for the eardrum. It collects and guides the sound waves into the middle ear. The outer ear consists of the following two parts: **Pinna, Ear Canal.**

**Middle Ear:** The middle ear, located between the outer ear and the inner ear, perceives the sound waves from the outer ear in the form of pressure waves. The middle ear is an air-filled cavity and consists of the following parts: **Eardrum, Malleus, Incus and Stapes.**

**Inner Ear:** The inner ear, as the name suggests, is the innermost portion of the ear. It is filled with a water-like substance and comprises both hearing and balancing organs. The inner ear comprises the following parts: **Cochlea, semicircular Canals, Auditory Nerve.**
Hearing involves a complex chain reaction within the ear. The ear not only acts as a receiver for sound, but also plays a major role in the sense of balance and body position. It consists of three basic parts - the outer ear, the middle ear, and the inner ear. Each part of the ear serves a specific purpose in the task of detecting and interpreting sound. The outer ear serves to collect and channel sound to the middle ear. The middle ear serves to transform the energy of a sound wave into the internal vibrations of the bone structure of the middle ear and ultimately transform these vibrations into a compressional wave in the inner ear. The inner ear serves to transform the energy of a compressional wave within the inner ear fluid into nerve impulses which can be transmitted to the brain. As the impulses reach the brain, sensation of hearing occurs. This can be explained by the **Resonance or Place theory by Helmholtz (1857)**. The Place theory states that the inner ear acts as a tuned resonator which extracts a spectral representation of the incoming sounds which it passes via the auditory nerve to the brainstem and the auditory cortex. This process involves a tuned resonating membrane, the basilar membrane, with frequency place-mapping. Another view is the **Frequency Theory by Rinne (1865) & Rutherford (1880)**. Also known as telephone theories assumed that the auditory nerve passed complete time domain representations of the incoming acoustic signal to the brain in a manner analogous to the way the waveform of a speech sound is transformed into fluctuating voltages in a telephone line. Complete time domain representation of the incoming waveform is directly encoded in the pattern of firings of the auditory nerve. It assumes that the auditory nerve can fire at rates of 20 to 20,000 times per second (frequency range of human hearing, 20-20,000 Hz).
Hearing impairment or loss can be classified as conductive, sensorineural, or a central auditory processing disorder (Heath & Waters, 1997; Reuben, Yoshikawa, and Besdine, 1996). The human ear can respond to minute pressure variations in the air if they are in the audible frequency range, roughly 20 Hz - 20 kHz.

**Conductive Hearing Loss:** Conductive hearing loss occurs when sound is not conducted efficiently through the outer ear canal to the eardrum and the tiny bones, or ossicles, of the middle ear. It usually involves a reduction in sound level, or the ability to hear faint sounds. This type of hearing loss can often be medically or surgically corrected. Conditions that may cause a conductive hearing loss include: Conditions associated with middle ear pathology such as fluid in the middle ear from colds, allergies (serous otitis media), poor eustachian tube function, ear infection (otitis media), perforated eardrum, benign tumors or impacted earwax (cerumen), Infection in the ear canal (external otitis), presence of a foreign body or absence or malformation of the outer ear, ear canal, or middle ear.

**Sensorineural Hearing Loss:** Sensorineural hearing loss occurs when there is damage to the inner ear (cochlea) or to the nerve pathways from the inner ear (retrocochlear) to the brain and cannot be medically or surgically corrected. It is a permanent loss. Sensorineural hearing loss not only involves a reduction in sound level, or ability to hear faint sounds, but also affects speech understanding, or ability to hear clearly. It can be caused by diseases, birth injury, drugs that are toxic to the auditory system, and genetic syndromes. It may
also occur as a result of noise exposure, viruses, head trauma, aging, and tumors.

**Mixed Hearing Loss:** Sometimes a conductive hearing loss occurs in combination with a sensorineural hearing loss. In other words, there may be damage in the outer or middle ear and in the inner ear (cochlea) or auditory nerve. When this occurs, the hearing loss is referred to as a *mixed* hearing loss.

**Degree of Hearing Loss:** Degree of hearing loss refers to the severity of the loss. The numbers are representative of the patient’s thresholds, or the softest intensity at which sound is perceived. The following is one of the more commonly used classification systems:

<table>
<thead>
<tr>
<th>Degree of hearing loss</th>
<th>Hearing loss range (dB HL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>-10 to 15</td>
</tr>
<tr>
<td>Slight</td>
<td>16 to 25</td>
</tr>
<tr>
<td>Mild</td>
<td>26 to 40</td>
</tr>
<tr>
<td>Moderate</td>
<td>41 to 55</td>
</tr>
<tr>
<td>Moderately severe</td>
<td>56 to 70</td>
</tr>
<tr>
<td>Severe</td>
<td>71 to 90</td>
</tr>
<tr>
<td>Profound</td>
<td>91+</td>
</tr>
</tbody>
</table>

**Configuration of Hearing Loss:** The configuration or shape of the hearing loss refers to the extent of hearing loss at each frequency and the overall picture of hearing that is created. For example, a hearing loss that only affects the high frequencies would be described as a high-frequency loss. Its configuration would show good hearing in the low frequencies and poor hearing in the high frequencies. On the other hand, if only the low frequencies are affected, the configuration would show poorer hearing for low tones and better hearing for high tones. Some hearing loss configurations are flat, indicating the same amount of hearing loss for low and high tones. Other classifications are:

- **Bilateral versus unilateral:** Bilateral hearing loss means both ears are affected. Unilateral hearing loss means only one ear is affected.

- **Symmetrical versus asymmetrical:** Symmetrical hearing loss means that the degree and configuration of hearing loss are the same in each ear. An asymmetrical hearing loss is one in which the degree and/or configuration of the loss is different for each ear.

- **Progressive versus sudden hearing loss:** Progressive hearing loss is a hearing loss that becomes increasingly worse over time. A sudden hearing loss is one that has an acute or rapid onset and therefore occurs quickly, requiring immediate medical attention to determine its cause and treatment.

- **Fluctuating versus stable hearing loss:** Some hearing losses change—sometimes getting better, sometimes getting worse. Fluctuating hearing loss is typically a symptom of conductive hearing loss caused by ear infection and
middle ear fluid, but also presents in other conditions such as Meniere's disease.

**Age of onset:** The age at which hearing loss occurs is crucial for the acquisition of a spoken language. Hearing impairment that is sustained prior to the acquisition of language is called **Prelingual deafness.** It can occur as a result of a **congenital** condition or through hearing loss in early infancy. Hearing impairment sustained after the acquisition of language is termed as **Post-lingual deafness** which can occur as a result of **disease, trauma,** or as a side-effect of a medicine. Post-lingual deafness is far more common than pre-lingual deafness.

The emotional and psychological adjustment to onset of hearing loss in adulthood is highly variable, depending on the life experiences, customary ways of managing challenges, and degree of sociability of the individual. Those who are outgoing, prefer group activities, and have careers that emphasize interpersonal contacts, react differently from those who lead more private lives (Scherer, 1996). D.A. Ramsdell (1997) characterized hearing as occurring on three psychological levels: **The social or symbolic level:** the capability to receive and understand language; **The signal or warning level:** enabling individuals to respond to such cues as a baby's cry or a fire alarm; **The level of fundamental "connectedness":** giving people the sense of being in touch with the surrounding environment. The fundamental sense of connectedness gives quality to life and defines the world as being "alive."

**Models of Hearing impairment:** Different models have described hearing impairment as disability
The Moral model is historically the oldest and is less prevalent today. However, there are many cultures that associate disability with sin and shame, and disability is often associated with feelings of guilt, even if such feelings are not overtly based in religious doctrine. This model has been associated with shame on the entire family with a member with a disability. Families have hidden away the disabled family member, keeping them out of school and excluded from any chance at having a meaningful role in society.

The Medical model came about as "modern" medicine began to develop in the 19th Century, along with the enhanced role of the physician in society. Since many disabilities have medical origins, people with disabilities were expected to benefit from coming under the direction of the medical profession. Under this model, the problems that are associated with disability are deemed to reside within the individual. In other words, if the individual is "cured" then these problems will not exist. Society has no underlying responsibility to make a "place" for persons with disabilities, since they live in an outsider role waiting to be cured. According to David Pfeiffer (1998) the medical model may well be called a hearing world view of deafness. Most hearing people see deafness as an inability to communicate via speech and listening and in the usual metaphorical terms of “walls/prisons of silence” and the like (Hyde & Power, 2004). People who experience hearing loss after acquiring a mastery of spoken language usually identify with this model. Also, people who describe themselves as hard-of-hearing or hearing impaired are likely to identify with it. The medical model encompasses the idea that an individual affected by hearing impairment may be
admired for their accommodation of the infirmity, or their courage in struggling with it, but the condition itself is generally seen as undesirable. Deafness is therefore conceptualized from a “personal tragedy”.

Fig. D: Medical model of disabled

**Sociocultural Model:** Contrasted with the medical model is the sociocultural model, sometimes called a *constructionist* model because its proponents believe that all people construct their lives through interaction with the individuals and institutions of the culture in which they live: education, religion, peer group, vocational affiliation, social class, and so on, and, especially, our families ([Gregory & Hartley, 1991; Power, 1997](#)). Disabled people affirm that the design of the environment often disables them. In better-designed environments, they are disabled less, or not at all. This affirmation arises in part from the understanding that while medical intervention can improve the health issues inherent in certain forms of disability, it does not address societal issues that
prevail regardless of the extent or success of medical intervention. In conjunction with this view of changing the environment from a disabling to an enabling atmosphere, advocates of the social model believe in the de-institutionalization of disabled persons by encouraging maximum integration with non-disabled peers.

**Fig. E: Social model of disabled**

**The Rehabilitation Model:** This model is similar to the medical model; it regards the person with a disability as in need of services from a rehabilitation professional who can provide training, therapy, counseling or other services to make up for the deficiency caused by the disability. Historically, it gained acceptance after World War II when many disabled veterans needed to be re-introduced into society. The current Vocational Rehabilitation system is designed according to this model.

Persons with disabilities have been very critical of both the medical model and the rehabilitation model. While medical intervention can be required by the
individual at times, it is naive and simplistic to regard the medical system as the appropriate locus for disability related policy matters. Many disabilities and chronic medical conditions will never be cured. Persons with disabilities are quite capable of participating in society, and the practices of confinement and institutionalization that accompany the sick role are simply not acceptable.

The Disability Model: This model has taken hold as the disability rights and independent living movements have gained strength. This model regards disability as a normal aspect of life, not as a deviance and rejects the notion that persons with disabilities are in some inherent way "defective". As Professor David Pfeiffer (1998) has put it, "...paralyzed limbs may not particularly limit a person's mobility as much as attitudinal and physical barriers. The question centers on 'normality'. What, it is asked, is the normal way to be mobile over a distance of a mile? Is it to walk, drive one's own car, take a taxicab, ride a bicycle, use a wheelchair, roller skate, or use a skate board, or some other means? What is the normal way to earn a living?" Most people will experience some form of disability, either permanent or temporary, over the course of their lives. Given this reality, if disability were more commonly recognized and expected in the way that individual design their own environments or systems, it would not seem so abnormal. The disability model recognizes social discrimination as the most significant problem experienced by persons with disabilities and as the cause of many of the problems that are regarded as intrinsic to the disability under the other models.
Thus, it can be seen all models have different perspectives with the target of improving quality of life of the disabled as it has been seen that a person with acquired hearing loss may struggle to adjust to the profound changes it brings to their life – including loss of intimacy, loss of casual communication and reduced social engagement. By withdrawing from social situations, the person with hearing loss attempts to avoid the difficulty of trying to converse. The incidence of mental illness among deaf people is estimated to be about four times greater than in the general population (Scottish Council on Deafness, 2009). Adult hearing loss is associated with an increased risk of psychiatric (Hogan, 2001) and affective mood disorders (Ihara, 1993; Mulrow, 1990). As their interpersonal and social life reduces (Hallberg, 1993; Hétu, Lalonde & Getty, 1987; Hétu, Jones & Getty, 1993), a person with hearing loss is likely to experience increasing feelings of frustration, sadness and isolation and helplessness. So the attempt has been made in this research to explore perceived social isolation and learned helplessness in hearing impaired individuals.

**PERCEIVED SOCIAL ISOLATION**

Social relationships beneficially affect health, not only because of their supportiveness, but also because of the social control that others exercise over a person, especially by encouraging health-promoting behaviors such as adequate sleep, diet, exercise, and compliance with medical regimes or by discouraging health-damaging behaviors such as smoking, excessive eating, alcohol consumption, or drug abuse. Social ties link people with diffuse social networks that facilitate access to a wide range of resources supportive of health, such as
medical referral networks, access to others dealing with similar problems, or opportunities to acquire needed resources via jobs, shopping, or financial institutions. These effects are different from support in that they are less a function of the nature of immediate social ties but rather of the ties these immediate ties provide to other people (House, 1988). **Absence of social support leads to perceived social isolation.** Social isolation can be defined as the inability to interact normally with others. It is objective physical separation from other people (Ernst & Cacioppo, 1999). Social isolation is defined as an objective measure of social interaction (number of personal contacts) and is sometimes referred to as aloneness or solitude (Hall and Havens, 1999). Those who are often alone, however, are not necessarily lonely, as solitude can be a personal choice. Moen et al. (1989) concurs with social isolation being objectively measurable with the idea that social isolation, or conversely integration, represents the existence or quantity of relationships. **Social isolation** can be more or less severe, and has a temporal dimension; that is, it could be permanent, periodic, or episodic if related to life cycles or life transition phases. DeJong-Gierveld (1987) suggests that loneliness can be described as negatively perceived social isolation. It is often viewed as the subjective counterpart to social isolation and the antithesis to social support (Victor, Scrambler, Bond & Bowling, 2000).

Delisle (1988) suggests that social isolation, or solitude, “denotes a lack of…quantity and quality of social contacts”. In other words, a situation of social isolation involves few social contacts and few social roles, as well as an absence
of mutually rewarding relationships with other people. Social isolation occurs on 
three levels. These are micro i.e. at individual level, meso at community level and 
macos at the level of society (Delisle, 1999). He also discussed different 
dimensions of social isolation i.e. Physical dimensions i.e. physical isolation 
occurs when environmental obstacles hinder a person’s ability to communicate 
with others. Isolation includes living alone, distance to/from (geography), harsh 
climate, homelessness, lack of space to gather having no places to socialize, 
housing, and transportation i.e. inability to access; Mental health and 
psychological dimensions that include mental loneliness which is the cognitive 
states of mind of people who are not in communication with others, such as 
might result from preoccupation with personal issues. These states could be 
temporary, episodic or permanent, total or partial. Biopsychic causes of mental 
solitude include physical and mental health problems. This includes lack of 
interest in social resources and opportunities, cognitive impairment, mental 
health issues, depression, introversion, interpersonal conflicts, social 
skills/personality (e.g., lack of self esteem), perceived insecurity, coping with 
loss. Social dimensions is politico-economic or sociocultural factors, including 
phenomenon that contribute to the marginalization of groups such as 
socioeconomic status or minority group status influenced by factors such as 
language, religion, social values, and norms of behavior. It includes minority 
group member, being alone, education, lack of adequate income, older age, 
gender, widowed or divorced, expectation of self-reliance, family conflicts, 
disenfranchisement from formal care services, ageism, out-migration of youth,
lack of awareness resources and opportunities, lack of access to resources and opportunities, cultural expectations, narrowing of support systems, lack of means to communicate e.g. phones, computers, bank machines, voice mail etc. **Physiological characteristics contributing to perceived social isolation** are physical impairment, Vision loss, Hearing loss. Illness and Frailty etc. (Delisle, 1999).

House (2001) discusses two main forms of social isolation: **Objective isolation** i.e., physical separation from others, and **subjective isolation** i.e. feelings of loneliness, emotional distance, or lack of support from others. Individuals who suffer objective isolation may have small social networks, interact with network members infrequently, and rarely participate in social activities. On the other hand, individuals who are subjectively isolated may perceive that they lack social support, report feelings of loneliness, and feel that they are not very emotionally close to their family and friends (House et al., 1988, Umberson et al., 2006; Uno et al., 2002)

**Perceived social isolation** can be characterized by the subjective experience of a shortfall in one’s social resources such as companionship and support. Feelings of loneliness and not belonging, for example, indicate a perceived inadequacy of the intimacy or companionship of one’s interpersonal relationships compared to the relationships that one would like to have (Van Baarsen et al., 2001). **Perceived isolation** is feeling of loneliness and a lack of social support (Erin & Linda, 2009). Schunk (1991) discussed various predisposing factors such as **health factors** which include diseases or
Impairment resulting in decreased social activities. **Personal factors** includes individuals having no interest in joining social activities. Financial difficulties also lead to avoidance of social activities in order to minimize their living expenses. **Family factors** are when the contact between elders and their adult children tends to decrease, as most adult children move out from their parent's homes, and are busy with their own lives. **Environmental factors** are like shifting of house or job etc. reducing their contacts with neighbors and friends. Brummett et al. (1996) show that isolated individuals report fewer interactions with others, fewer sources of psychological/emotional and instrumental support, and lower levels of religious activity. Factors that constitute as an active ingredient in social isolation producing its deleterious effects on health can be the idea that isolation from others is anxiety arousing or stressful in and of itself, producing physiological arousal and changes, which if prolonged, can produce serious morbidity or mortality; and, conversely that affiliation or contact with others reduces or modulates physiological arousal, both, in general and in the presence of stress and other threats to health.

**Indicators of isolation** have been discussed by various researches as having worse health, living alone, having a small social network, low participation in social activities, a perceived lack of social support, and feelings of loneliness (Berkman & Syme 1979; Dean et al., 1992; Hawkley et al., 2006; Krause, 1987; Thoits & Hewitt 2001). Social isolation has been linked to worse health across all age groups (House et al., 1988). It has been found that health risks are associated with having a small social network (Berkman & Syme, 1979;
infrequent contact with network members (Brummett et al., 2001), and a lack of social network diversity (Barefoot et al., 2005). It has also been identified that low participation in social activities, particularly volunteering and religious attendance, as a health risk (Benjamins, 2004; Thoits & Hewitt, 2001). Perceived social support has been linked to physical and mental health also (Blazer, 1982; Krause, 1987; Lin, Ye & Ensel, 1999). Thus, the relationship between social disconnectedness and mental health has been found to operate through the strong association between perceived isolation and mental health. These findings are in line with other studies that links between aspects of subjective isolation, particularly loneliness, and mental health (Cacioppo et al., 2006; Heikkinen & Kauppinen, 2004). Social disconnectedness is also observed to be associated with worse physical health because of lack of social support or loneliness (Ernst John & Cacioppo John, 1999). Older adults who are able to withstand socially isolating circumstances or adjust their expectations so that they do not develop a subjective sense of isolation may have better, with respect to physical and mental health, than those who feel isolated (Ferraro, 1984; Weiss, 2005). Social isolation negatively affects both physical and mental health, particularly among older adults (House, 2001; House, 2002; Tomaka, Thompson, & Palacios, 2006).

Mullins et al. (1996) found that a decline in physical mobility may impede one’s ability to get out and about and therefore interact socially. Similarly, a decline in vision and hearing can affect the ability to communicate, which can have an isolating effect. Individuals having sensorineural hearing loss are
disadvantaged in exercising full participation in the social life of the country. This is because of unwillingness of the rest of society to provide them with adequate means to ensure complete access to the working opportunities the society can offer. The lack of special concerns and consideration for the particular needs of deaf is likely to amplify their perception of being regarded as excluded, who are less valuable and deserve little attention from the rest of society. Basic problem of deafness is not a lack of hearing, but an abundance of isolation. Social exclusion of deaf has strong roots in the mentalities at individual, group, community and societal levels, which are generating various forms of overt and covert, formal and informal discrimination. Gerenèer (2004) said that in hearing loss individuals there is emotional trauma of hearing loss giving a sense of perceived isolation by excluding them from the rest of society because of hindrances in their communication. Since their natural language is not recognized, they are pushed to the margin of society and deprived of their basic rights. Consequently, deprivation is felt in the economical, social and psychological fields. In the psychological field it manifests as social isolation and loneliness, distrust of the rule of law, low self-esteem, stereotypes and prejudices about the public opinion. In the economic field they are isolated on account of segregated form of schooling in special schools, limited choice of employment, illiteracy and functional illiteracy, high unemployment rate, and the lack of information. Also because of hearing loss there is the difficulty in communicating, scarce feedback from the rest of society, and inaccessibility of cultural events (theatre, concerts, etc.) are evidence of their deprivation on the
social field. Research has shown fairly consistently that social isolation and loneliness are related to negative health outcomes and that social support of various types and from various sources is associated with positive health outcomes (Cassell, 1976; Cobb, 1979; Cohen & Syme, 1985; Ernst & Cacioppo, 1999; Gupta & Korte, 1994; House et al., 1988; Uchino, Uno, & Holt-Lunstad, 1999). Gratifying social relationships are also thought to be a key factor in psychological health, including happiness and subjective well-being (Myers & Diener, 1995).

Theoretical Models of Social Isolation:

Social Exchange Theory: Exchange is the basis of human behavior. This has been discussed by different researchers in various forms. Homans (1961) states “Social action is an exchange of activities and rewards/costs between individuals on the grounds that people have always explained their conduct by means of its benefits and costs to them” (Homans, 1961) and is pervasive throughout social life (Coleman, 1990). It can be seen that exchange transactions are reciprocal, if reciprocity is not observed such transactions will tend to eventually discontinue. An exchange is therefore defined as social interaction that is characterized by reciprocal stimuli or mutual reinforcements. Within the attribute of reciprocal reinforcement, the concept of an exchange relation contains an ‘exchange ratio’ i.e. balance-imbalance. This variable sets the stage for introducing dependence, power, and cohesion (Emerson, 1969). Dowd (1980) viewpoint is that withdrawal and social isolation are not the result of system needs or individual choices, but an unequal exchange process between older persons and other
members of society. There is shift in opportunity structures, roles, and skills accompany with ageing, older people typically have fewer resources which diminishes their social relationships, and their status accordingly (Hendricks, 1995). All relationships have give and take, although the balance of this exchange is not always equal. Thus, theory explains feeling about a relationship with another person as depending on perceptions of the balance between what the person put into the relationship and what he gets out of it. The kind of relationship one deserves and the chances of having a better relationship with someone else. A comparison level is developed against which comparison of the give/take ratio is made. This level will vary between relationships, with some being more giving and others where the person get more from the relationship.

**Buffer theory: Cobb (1979)**

According to this theory social support provides a ‘buffer’ when people are in crisis, thus the absence of social support may remove this buffer leading to health conditions. People who feel supported by others feel less stress. The individual's social support system may help moderate, or buffer the effects of life events upon his psychological states. Knowing about friend support will make stressful situations more tolerable (Cohen & Hoberman, 1982; Antonovsky, 1974; 1979; Caplan, 1974; Cassel, 1976; Cobb, 1976; Henderson et al., 1978b; Kaplan, Liem & Liem, 1978).

Studies by Andrews et al. (1978); Liem & Liem (1976); Lin et al. (1979c) indicate that social support interacts significantly with life events or strains to produce an impact upon physical or psychological wellbeing. The combination of
low support and one or more life events significantly increases symptoms of physical or psychological distress. The perception of social support promotes mental health, because it buffers the damaging effects of stress and diminishes the perceived significance of stressful events (Wethington & Kessler, 1986). Perceived social support has also been shown to promote physical health and reduce all-cause mortality (Ren et al., 1999)

**Social Constructionism: Scott (1969).**

This theoretical approach emphasizes learning from disabled people's experience to understand meanings of disability. Hearing loss or blind differs according to the economic and cultural contexts. A classic study showed that in the United States blindness was experienced as loss requiring counseling, in Sweden as a problem requiring support services, in Britain as a technical issue requiring aids and equipments.

**Critical theory: Abberley (1987).**

Abberley highlighted disabled people's problems explicitly as the product of an unequal society. It ties the solutions to social action and change. It has been observed that prejudice and discrimination disable and restrict people's lives much more than impairments do. Society perpetuates practical barriers and exclusions. Assuming disability to be an individual matter of personal tragedy or heroic triumph over difficulty, disabled people are excluded from society. Ordinary education, employment, buildings, public transport, and other things which most people can take for granted remain largely closed to disabled people, or at least they present obstacles which each person has to tackle individually.
**Attachment Theory: Bowlby (1969)**

Attachment is defined as an affection tie that one person or animal forms between him/herself and another specific one—a tie that binds them together in space and endures over time. He included Attachment, Separation and Loss, a trilogy, which brought together many disciplines such as etiology, psychology and psychoanalysis. Attachment influences both the perception of support from others and the tendency to seek support from others. People with secure attachment styles seek more support and get more support from their relationship partners, while people with other attachment styles seek less support and get less support from their relationships partners (Kobak & Sceery, 1988; Mikulincer et al., 1993; Simpson et al. 1992; Florian et al. 1995). People with secure attachment styles may trust their partners to provide support because their partners have reliably offered support in the past. They may be more likely to ask for support when it's needed. People with insecure attachment styles often do not have a history of supportive responses from their partners. They may rely less on their partners and be less likely to ask for support when it's needed.

**Disengagement Theory: Cumming & Henry (1961)**

Disengagement theory defined aging as a process through which society and the individual gradually withdraw or disengage from each other. As such, individuals freed from social roles and responsibilities have more free time for reflection, which is often centered on them. From a societal perspective, there is a transfer of power from the old to the young, making it possible for society to continue to function. Cumming and Henry based their study of the
Disengagement Theory on 172 middle-classes. In this theory it has been found that persons between the ages of 48 to 68 of persons were wealthier, better educated, and in a higher occupational and residential echelon than the general aged population.

**Activity Theory: Havighurst (1963)**

This theory suggests that aged people should continue an active middle-aged lifestyle and should remain as active as possible. Instead of an acceptance of being old, which leads to living a compromised, inactive lifestyle, the Activity Theory proposes maintaining an active life. Also, obstacles are to be resisted and that problems involving declining health, loss of roles and responsibilities, reductions in income, and a diminishing circle of friends are to be overcome. Activity theory notes that older adults who adjust to later-life transitions by remaining socially active are happier and healthier (Cavan et al., 1949; Lemon, Bengtson & Peterson, 1972).

**Continuity Theory: Neugarten (1964)**

It is also known as the Developmental Theory. In spite of the aging process, personality and basic patterns of behavior are considered to be constant in the individual. Indeed, patterns and activity levels developed over a lifetime will largely determine whether an individual remains engaged and active or becomes disengaged and inactive as they age. For example, an activist at the age of 20 will most likely be an activist at 70; whereas a young inactive person will most likely be relatively inactive in mainstream society as they age. Aging is a complex process. The Continuity Theory encourages young people to consider
their current activities as a foundation for their own future aging process. According to this theory people become accustomed to certain social roles and social activities throughout their lives, and that older adults attempt to maintain them through many transitions (Atchley, 1989; Rowe & Kahn, 1998; Thoits, 1992).

**Network Theory**

Social network refers to the structure of linkages or relationships among a particular group of people. *Chappell & Badger (1989)* concluded that social networks can affect one’s psychological well being. The size of the social network presumably measures one’s potential social supports, which is the actual interaction with others including the assistance that a person provides and/or receives from another. Social networks can therefore be viewed as the structure through which social support may be provided and that facilitates interaction. They are the ties that link people together in definable patterns, such as family relations, friends, colleagues, or acquaintances (McDowell & Newell, 1987). Social networks are essential to successful aging because they provide embeddedness in systems of norms, control, and trust (Coleman, 1988), access to information and other resources, and social support (Antonucci & Akiyama, 1995). These resources are crucial for well-being (House, Landis & Umberson, 1988), making them especially valuable to older adults. Having numerous direct ties to people (i.e., having a large “egocentric” network) gives people alternative routes to valuable resources, increasing their chances of receiving support when it is needed. Therefore, those who have larger networks
tend to have better health (Berkman & Syme, 1979), especially when interaction with network members is frequent (Lin, Woelfel & Light, 1985; Terhell, van Groenou & van Tilburg, 2007). Some types of social ties may be more beneficial than others. High-quality relationships are more likely to provide older adults' with a sense of belongingness, and are associated with better self-esteem and well-being (Fiori, Antonucci & Cortina, 2006; Wellman & Wortley, 1990). According to Binstock and George (1996) social structures, such as social networks and social support, are important in the concept of isolation. Social networks are characterized in different ways, for example, size, density, distribution, dispersion etc., with network size receiving the most attention. Whereas Wenger (1997) identified five network types: Locally integrated support networks i.e. a large grouping that includes relationships with family, neighbors, and friends. Wider-community focused support networks; Local self-contained support network which tends to be small and mostly neighbor-based; Local family dependent support networks; a small grouping that relies primarily on close family members; and private restricted support network. Each of these support network types has different strengths and weaknesses and may be associated with different levels of risk. As Wenger (1997) pointed out that older people in the local self-contained network and private restricted network, in particular, may face a higher risk of social isolation. Another viewpoint by Berkman (2000) said that social ties link people with diffuse social networks that facilitate access to a wide range of resources supportive of health, such as medical referral networks, access to others dealing with similar problems, or opportunities to acquire needed
resources via jobs, shopping, or financial institutions. These effects are different from support in that they are less a function of the nature of immediate social ties but rather of the ties these immediate ties provide to other people. Humans acquire and manipulate socially constructed learned communicative code using hearing and speech; culture learning is at once aural and oral. Any impairment may inhibit communication which is an essential need for any person, as it allows acquisition of knowledge and experiences by helping people to remain active in social and family life. When communication is damaged, it can cause personal frustration leading the individual to a self isolation and depression (Boechat, 2003). Independent surveys in Australia, Japan and the United States of America, show that hearing impairment is consistently associated with increased levels of depression and reduced quality of life for the person with the impairment (Chia, 2007; Ishine, 2007; Abrams, 2006). Other psychosocial impacts of hearing loss include embarrassment, loss of confidence, irritability and anger, dependence on others, helplessness and fatigue (Princess Alexandra Hospital Health Service District Mental Health Service, 2004).

LEARNED HELPLESSNESS

Learned helplessness is a psychological condition in which humans or animals have learned to believe that they are helpless. They feel that they have no control over their situation and that whatever they do is futile. As a result they will stay passive when the situation is unpleasant or harmful and damaging. Martin Seligman (1973) conceptualized this term and stated that the feeling of helplessness is self perpetuating which results in anxiety, frustration or fear. It
undermines motivation and retards the ability to perceive success (Seligman, 1975). It is one of the effects/causes of the stress.

Abramson et al. (1978) defined it as “an individual’s feeling that desired outcomes are improbable or are uncertain so that whatever efforts he or she makes, he/she can't be able to achieve them”. Peterson et al. (1994) quoted that learned helplessness may be defined as ‘when people who experience uncontrollability first learn that their outcomes elude their control and then generalize this belief about their own helplessness to new situations, where it produces difficulties for them which might result into the stress for the individuals.’

According to Smith (2001), “Learned helplessness is a phenomenon in which individuals gradually, usually as a result of repeated failure or control by others, become less willing to attempt tasks”. Myers (2002) defines learned helplessness as “the hopelessness and resignation learned when a human or animal perceives no control over repeated bad events.” Whereas Comer (2004) defines learned helplessness as “the perception, based on past experiences, that one has no control over one’s reinforcements.” However, Stipek & Freeman (1988) explained it is as a motivational problem where one might have failed in a task or two in the past which have made that individuals believe that they are incapable to do anything in order to improve their performance in that task. Most humans have an intrinsic need to be competent and to explore behaviors. If they fail, their competence diminishes, and they feel no need to explore resulting in helplessness (Shields, 1988). Experience with uncontrollable events leads to the
expectation that future events will also be uncontrollable resulting in disruption in motivation, emotion and learning (Peterson, Maier & Seligman, 1993).

Learned helplessness affects other psychological processes such as motivation is reduced as there is no incentive to try new coping responses; cognition is affected due to inability to learn new responses to overcome prior learning that trauma is uncontrollable resulting in emotion of helpless state which resembles depression. It leads to variety of human adaptation failures such as depression, poor work performance, illness etc. (Klein & Seligman, 1976; Peterson et al., 1993; Qian & Alvermann, 1995). Symptoms of learned helplessness have been described by Ramirez, Maldonado & Martos, 1992 as these individuals are having few voluntary responses, only answers to direct inquiries, negative thinking and difficulty learning how to act to effect the outcome, passivity in all situations, increase of all of the above over time, depressed appetite, sexual interest, less socialization, lack of self care, no desire to put out any energy, physiological changes such as weight loss or gain. Also lack of self-confidence, poor problem solving, wandering attention and feeling hopeless, difficulty in learning behavior patterns in reaction to controllable adversities, reduced motivation in initiating coping responses, and emotional reactions of sadness or depression can be observed in these individuals. Seligman’s own work about this concept began in the mid-1960s in the animal learning laboratory of Richard L. Solomon at the University of Pennsylvania.
Theoretical models of Learned helplessness:

**Learned Helplessness theory (Martin Seligman, 1973):**

He conceptualized Learned Helplessness theory in the 1970s which had a major influence on psychological research into depression. He discovered helplessness by accident whilst studying the effects of inescapable shock on active avoidance learning in dogs. Seligman restrained dogs in a pavlovian harness and administered several shocks (UCS) paired with a conditioned stimulus (CS) as in classical conditioning. Then these dogs were placed in a shuttle-box where they could avoid shock by jumping over a barrier. The shuttle-box was used to study the role of operant conditioning in learning. Most of the dogs failed to learn to avoid shock. He explained that prior exposure to inescapable shock interfered with the ability to learn in a situation where avoidance or escape was possible and used the term Learned Helplessness to describe this phenomenon. Seligman generalized the theory to humans. The earliest study of human helplessness were parallel to that done with animals exposing human research participants to aversive events—typically bursts of white noise—that could neither be escaped nor avoided. Participants were then tested on tasks that could be mastered, for example, unscrambling anagrams. And just as with animals, the reliable finding was that relative to individuals who either had no previous experimental experience, or experience with controllable events, those who had experienced uncontrollability often showed deficits: negative affect, slower problem-solving, more failures to master tasks, and perseveration with unproductive strategies. Seligman and Donald (1975) in their
initial research on humans reported four parallel studies testing the transfer of helplessness deficits from one sort of pretreatment to a second sort of test task. Two pretreatment tasks were used: an "instrumental" pretreatment, in which participants had to press buttons to terminate a noise, and a "cognitive" pretreatment, in which participants had to solve concept-identification problems. Two test tasks were used, one "instrumental" i.e. moving a lever to escape or avoid a noise and the other "cognitive" which is unscrambling anagrams. The four studies were made up of all possible combinations of the pretreatments and test tasks.

Martin Seligman generalized the theory to humans having two main points (Comer, 2004): people become depressed when they think that they no longer have control over the reinforcements i.e. the rewards and punishments in their lives, and that they themselves are responsible for this helpless state? Not all people become depressed as a result of being in a situation where they appear not to have control. Seligman discovered that a learned helplessness person thought about the bad event in more pessimistic ways than other person. He called this thinking, "explanatory style," borrowing ideas from attribution theory. People in a state of learned helplessness view problems as personal, pervasive, or permanent. That is, Personal: internal vs. external - They may see themselves as the problem; that is, they have internalized the problem. Pervasive: specific vs. universal. They may see the problem affecting all aspects of life. Permanent: temporary vs. permanent - They may see the problem as unchangeable. He found that the most pessimistic explanatory style is correlated
with the most depression. **Abramson, Seligman, & Teasdale (1978)** later reformulated Seligman’s learned helplessness theory according to attribution theory and redefined learned helplessness as "a consequence of perceptions of a non contingency between one's responses and desired outcomes" If the probability of reaching one's desired outcomes is not increased by one's responses and desired outcomes is not increased by one's actions, then learned helplessness will result. The results are passivity, negative perceptions about future events, and a generally negative perspective. According to Abramson people feel helplessness: attributions may be internal or external, stable or unstable and global or specific. People who make internal, stable and global attributions about their helplessness are more prone to depression. Thus, according to Seligman’s reasoning expectancy of no control leads to LH deficits.

**Motor Activation Deficit model: Weiss, (1975)**

Weiss stated that inescapable shock depleted a neurotransmitter, typically norepinephrine that was necessary for the mediation of movement. Therefore, helplessness was not the result of an interference with learning, but rather it was the result of neurochemically based movement impairment. Learned helplessness is produced by "some form of stress-induced 'debilitation'. Weiss has studied the effects of exposure to uncontrollable situations on norepinephrine (NE) metabolism in the brain. He stated that rapid dissipation of the learned helplessness effect is not characteristic of learning, but instead indicates a short-term physiological imbalance that corrects itself with the passage of time from exposure to trauma.
Integrative model of reactance and helplessness: Wortman & Brehm (1975)

Integrative model explains that the expectancy of no control may impair performance mainly when people assign high importance to the tasks and the assignment of low importance may inhibit LH deficits, even after a person expects to fail in the test task. Also, the individual’s affective reactions to helplessness training may intensify LH effects, with anger strengthening reactance and anxiety and depressed mood strengthening LH deficits.


Carver and Scheier (1981) state that the direction of attention is inward which means self focus is another moderating factor. Unfavorable expectancies produce LH deficits only under conditions that encourage self-focus or among persons who habitually tend to direct attention inward. In addition, Carver and Scheier introduced the concept of mental withdrawal – a mental dissociation from task attempts – as the mechanism that underlies LH deficits.

Certain theories propose that psychological factors other than the expectancy of control may account for LH effects:


This theory emphasizes the role of anxiety and off task thoughts (Coyne, Metalsky & Lavelle, 1980; Lavelle, Metalsky & Coyne, 1979; Mikulincer ;1989a). This hypothesis, which is based on anxiety theory and research (Mandler, 1972; Sarason, 1975; Wine, 1971), maintains that exposure to unsolvable problems provokes anxiety and related self-focused off-task thoughts, including worry about one’s negative characteristics, self-doubts and self-denunciation. These
self-concerned cognitions divert attention away from task-relevant activities and thereby impair task performance.

**Action Control Theory: (Kuhl 1981, 1984)**

He introduced the dimension of **action-state mental rumination** as an intervening factor in the sequence of events leading to learned helplessness. **Action rumination** is defined by purposive thinking on goal directed problem solving. **State rumination** is represented by both purposive and autonomic thinking about the past, present, and future state of the self. Kuhl (1981) postulated that exposure to uncontrollable failures initially enhances action rumination and focuses the person on the problem at hand resulting in reactance effects. Repeated uncontrollable failure may induce a change from action to state rumination, which diverts attention away from task relevant actions, creates a state of cognitive interference, and impairing task performance.

**The Egotism theory: Frankel & Snyder (1978)**

It suggests that LH deficits are a result of lack of effort stemming from the desire to protect self esteem from the threat created by a failure. As stated earlier, uncontrollable failure many not only lead to the belief that outcomes are independent of responses but also may threaten self-esteem, to protect self-esteem, people might lower their efforts in the test task in order to rationalize any potential failure as attributable to lack of effort rather than lack of ability. They may adopt as **Jones and Berglas (1978) have termed self-handicapping strategies** – the creation of impediments to performance which give people an
excuse of failure. These strategies protect self-esteem by controlling the causes of failure, but at the price of performance deficits.

**Gilbert (1984) reformulated within the framework of attribution theory.**

Briefly depression will occur if the individuals are aware of uncontrollable factors in their environment, view the situation as unchangeable, blames themselves for their helplessness-internal attribution (Seligman, 1992).

![Diagram](image)

Discussing about the **learned helplessness in hearing impaired individuals** **Kalela (2006)** states that a hard of hearing (HOH) person may interpret all misfortunes and problems to be self-caused, permanent, and total. One’s environment does not necessarily react to a HOH person’s attempts to influence things, and repeated failures can make him or her passive. A HOH person may not believe in his or her own possibilities to influence the course of events, and thus he or she does not do anything concrete to change the situation. They may think that life’s events cannot be controlled, and that the end result depends entirely on one’s surroundings. If they continually encounter events they consider
beyond their influence, or do not have the energy to influence, their motivation can decrease and their attitude towards life, people and their surroundings can become indifferent. At its worst, learned helplessness can lead to serious psycho-social symptoms such as ulcers, stress, depression, and finally social isolation. Achieving a high quality of life is no longer a goal.

**Health implications**

People who suffer uncontrollable events reliably see disruption of emotions, aggressions, physiology, and problem-solving tasks (Roth, 1980; Wortman, & Brehm, 1975). These helpless experiences can associate with passivity, uncontrollability and poor cognition in people, ultimately threatening their physical and mental well-being.

**Physical health:** Learned helplessness can effectively contribute to poor health when people neglect diet, exercise and medical treatment, falsely believing they have no power to change. The more people perceive events as uncontrollable and unpredictable, the more stress they experience, and the less hope they feel with about making changes in their life (Henry, 2005). People with a pessimistic explanatory style tend to be poor at problem-solving and cognitive restructuring, and also tend to demonstrate poor job satisfaction and interpersonal relationships in the workplace (Welbourne, Eggerth, Hartley, Andrew & Sanchez, 2007; Henry, 2005). Those with a pessimistic explanatory style also tend to have weakened immune system, and not only have increased vulnerability to minor ailments (e.g. cold, fever) and major illness (e.g. heart attack, cancers), and but
also have less effective recovery from health problems (Bennett & Elliott, 2005).

**Psychological health:** Learned helplessness can also be a motivational problem. Individuals who have failed at tasks in the past conclude erroneously that they are incapable of improving their performance (Stipek, 1988).

**Social impact:** Elderly learn to be helpless and conclude that they have no control over losing their friends and family members, losing their jobs and incomes, getting old, weak and so on (Rodin, 1986). Social problems resulting from learned helplessness seem unavoidable; however, the effect goes away with the passage of time (Young & Allin, 1986). Experience with uncontrollable aversive events may undermine the individual’s confidence in preventability of health problems that induce stress and stress-related disorders (Henry, 2005). The more he perceives events as uncontrollable and unpredictable, the more stressful he is and the more powerless and hopeless he feels with respect to making changes in their life. It has also been observed that learned helplessness in hearing impaired individuals can lead to serious psycho-social symptoms such as ulcers, stress, depression, and finally social isolation. Kalela, 2006. In a study by Mann (1983) the patients with acquired hearing loss have social, cognitive problems which lead to poor super ego, depression, anxiety and feeling of learned helplessness and low subjective wellbeing.

**NEED OF THE STUDY**

Hearing is one of the divine gifts for humans. It is the basis of speech language development. Divergent thinking, growth and development of human
knowledge and thoughts depend on hearing. Language and speech are the only natural methods to communicate. The population is increasing worldwide due to improvements in public health conditions, and control of infectious diseases. Therefore, attention to the health factors has become major attraction these days worldwide. Regardless of etiology, HL in people can have devastating effects on quality of life (Cohen, 2005; LaForge, 1992; Mulrow, 1990) and overall functioning (Mulrow, 1990). In fact, a strong correlation between HL and depression has been found in older patients (Carabellese, 1993). Left untreated, these effects become an ongoing contributor to the decline of health with age. Using WHO terminology, HL ranks third after depression and other unintentional injuries as a leading cause of years lived with disability (YLDs) in adults (WHO, 2006). In the case of HL, many of these YLDs presumably occur during the elderly years.

The necessity to do present study, to see the effect of perceived social isolation and learned helplessness on quality of life in persons having mild and severe degree of hearing loss in age group of 40-55 years, is firstly, there are very few reported studies on quality of life in context to perceived social isolation in the individuals with hearing loss in India. Secondly, most of the studies conducted so far did not have information with regard to the effect of the loss of hearing on perceived social isolation and learned helplessness affecting quality of life. Thirdly, there is diversification of results in studies showing the gender differences on quality of life of hearing impaired.
Fourthly, there is dire need to provide important dimensions from the counseling point of view to improve quality of life in hearing impaired individuals.

**OBJECTIVES**

Following are the objectives of present research to study:

1. The impact of degree of hearing impairment on quality of life of individuals.
2. The effect of perceived social isolation on quality of life of individuals.
3. The effect of learned helplessness on quality of life of individuals.
4. The relation of hearing impairment and perceived social isolation on quality of life of individuals.
5. The relation of hearing impairment and learned helplessness on quality of life of individuals.
6. The relation of perceived social isolation and learned helplessness on quality of life of individuals.
7. The relation of hearing impairment, perceived social isolation and learned helplessness on quality of life of individuals.
8. The gender differences in quality of life of individuals.

**HYPOTHESES**

The following hypotheses were formulated:

1. Quality of life of individuals with mild hearing loss would be better as compared to severe hearing loss individuals.
2. Quality of life of individuals, having high perceived social isolation, would be low as compared to individuals having low perceived social isolation.
3. Quality of life of individuals, having high learned helplessness, would be low as compared to individuals having low learned helplessness.

4. Quality of life of mild hearing impaired individuals with low perceived social isolation would be better as compared to severely impaired individuals with high perceived social isolation.

5. Quality of life of individuals with mild hearing impairment and low learned helplessness would be better as compared to individuals with severe hearing impairment and high learned helplessness.

6. Quality of life of individuals with low perceived social isolation and low learned helplessness would be better as compared to individuals with high perceived social isolation and high learned helplessness.

7. Quality of life of mild hearing individuals having low scores on perceived social isolation and learned helplessness would be better as compared to severely hearing impaired individuals having high scores on perceived social isolation and learned helplessness.

8. Quality of life of females would be better than of males.