CHAPTER V
DISCUSSION

Ageing presents many challenges to study the society and individuals. With gradual and sustained increase in life expectancy, the number of elderly, both relative and absolute, is increasing all over the world. With this increase, is emerging newer needs of this group, which are being felt in all sectors of human sustenance, be it health, social, economic, quality of life etc. Chronic illness is endemic among many older people in the developing world. The impressive successes of medicine and public health over the past century have made it possible for elderly persons to live longer and healthier ever before.

Older persons are remarkably heterogeneous. Many persons in their 60s are healthy and can expect to live another 30 years or longer. Yet geriatric diseases that will cause disability and ultimately death will develop in nearly all older persons. While age alone is a strong predictor of risk of disease, disability, and death, the health status, prognosis and preferences of care of persons in their 70s, 80s and 90s vary widely.

The main aim of the study was to look at the prevalence of geriatric diseases and quality of life of elderly living in residences and old age homes. Such a study was necessitated because due to urbanization and modernization many elderly are being left alone by their families. As a result a large member of old age homes started to come up like mushrooms all over the country. Today, the old age homes are indispensable as they are needed to take care of the lonely and forsaken elderly in the evening of their lives.
It was assumed that there will be significant differences in health and quality of life of men and women living in homes and institutions.

The results of the present study are discussed under separate headings as follows.

5.1 General Description of the sample

The sample consisted of 800 elderly. There were equal number of men and women living in homes and institutions and also equal number in two age groups. Classification of men and women respondents in two age groups living the two settings is given in table 4.1.1.

Equal percentage of respondents were in each of the category viz, institutions and non-institutions, men and women and in the two age groups. 12.5 percents of the sample were in each sub group.

The respondents, marital status play a major role in determining their perception of QoL. Marital status of men and women respondents in two settings is shown in figure 5.1.1 and 5.1.2 in both institutional and non-institutional settings majority of men were married. Among non-institutional respondents majority of women (64.0%) were widows and in institutional settings majority of them (51.5%) were married.
Figure: 5.1.1. Classification of Men Respondents by Marital status

Figure: 5.1.2. Classification of Women Respondents by Marital status

The level of literacy is vital in altering an individual’s overall perception of quality of life. In both institution and non-institution settings as seen in figure 5.1.3 and 5.1.4 it may be noticed that most of them were illiterates. In institutional settings majority of both men and women were illiterates. Where as in non-institutional settings majority of men respondents have not completed SSLC.
Figure: 5.1.3. Classification of Men Respondents by Educational level

Figure: 5.1.4. Classification of Women Respondents by Educational level

It has been observed that during the previous years men and women did not give much importance to education due to varied reasons such as poor income, negligence, lack of awareness on the need for education etc.
The demographic structure of the sample indicates variations in the percentage of people in the sub groups with regard to marital status, educational level and number of children in the family of respondents. These differences are likely to affect the health related QoL, geriatric diseases and the QoL of the elderly.

Table 4.1.4 on page 103 shows the number of children in the family of men and women respondents in the two settings. In the institutional settings majority of men respondents (39.5%) had 1-2 children, 22.5 percent of them were having 3-4 children and only 14 percent were having 5-6 children while as in non-institutional settings majority of men respondents (51.0%) had 3-4 children, 26.5 percent of them had 1-2 children and 19.5 percent of them had 5-6 children.

It was observed that in institutional settings 31.5 percent of men and 29.5 percent of women respondents did not have children. This could be the reason of stay in the old age homes when there is no body to take care of them. It is surprising to know that 14.0 percent of men and 16.0 percent of women who had 5-6 children were staying in old age homes.

The family ties in India are strong and overwhelming. Majority of the old people live with their family members. However, the position of an increasing number of older persons is becoming vulnerable. In the present scenario we cannot take it for granted that the children will look after elderly parents when they need care in their old age. The Indian social system is rapidly under transitions; the structure and functioning of the family is fast changing. The dynamics of interactions, interpersonal relations and communication are changing. In the absence of healthy relations among family members healthy ageing is likely to be a big issue. The healthy communication between elderly and family members can be reinforced only when we
understand the expectation profile of elderly; care may be provided accordingly.

5.2 Prevalence of Geriatric Diseases

Worldwide, the geriatric age group constitutes one of the most rapidly expanding segments of population. The increase in longevity due to improvement in socioeconomics conditions and health care facilities has lead to a surge in geriatric population as well as related illness such as cardiovascular disease. Worldwide, including India, hypertension is one of the leading causative factor in cardiovascular, coronary artery diseases, and cardiac failure and end stage renal disease in geriatric population.

Prevalence of geriatric disease among respondents is shown in figure 5.2.1 Majority of respondents were hypertensive and diabetics. Respondents also suffered from other diseases viz., osteoporosis followed by cardio vascular disease, gastric intestinal disease and other diseases like respiratory problem, cancer and psychiatric disorder. Only few percent of the respondents were not suffering from any diseases and reported to be healthy. Lima.et.al.,(2009) in their study detected a higher prevalence of geriatric diseases (viz., arthritis, depression, diabetes, hypertension, osteoporosis) among the elderly population and found that the degree of impact on HR-QOL depends on the type of diseases. The findings of the study conducted by Chalise Nath Hom, (2012) coincide with the present study revealing majority of elderly suffered from hypertension and diabetics, other diseases were respiratory, arthritis and heart diseases.
Figure: 5.2.1: Prevalence of Geriatric Diseases among Respondents

The prevalence of geriatric diseases among men respondents and women respondents living in institutional and non-institutional settings are shown in figure 5.2.2 and 5.2.3.

Figure: 5.2.2: Prevalence of Geriatric Diseases among Men Respondents living in Institutional and Non-institutional settings

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Figure: 5.2.3: Prevalence of Geriatric Diseases among Women Respondents living in Institutional and Non-institutional settings

Hypertension is one of the most important causes of mortality and morbidity in the elderly. Majority of the respondents (67.0%) had hypertension. As a consequence of a high prevalence, some proportion of cardiovascular diseases in elderly is attributable to hypertension. Age is a very important non-modifiable risk factor for development of hypertension. In both the institutional and non-institutional settings more men and women were hypertensive. Blood pressure rises with age and the rise is greater in those with higher initial blood pressures. However, increase in blood pressure does not represent an inevitable consequence of normal human aging but rather is caused by some genetic and / or environmental factors. Still, in India, with increase in ageing population the prevalence of hypertension is bound to increase.

With aging the incidence of lifestyle diseases also increases. This is not a sudden onset phenomenon but an accumulation of changes in the expression of genes in response to nutrition and environment from conception. For the same body size Indian people
have more fat and less muscle than other ethnic groups. People of Indian origin worldwide are at increased risk of cardiovascular disease and type 2 diabetes mellitus.

Diabetes mellitus becomes increasingly common with advancing age and this particularly applies to non insulin dependent diabetes or adult onset diabetes because it usually begins in adulthood. It develops when the insulin that is produced does not work properly. In most cases this is linked with being overweight and leading a sedentary lifestyle. Type 2 diabetes is the more common of the two main types and accounts for 85 - 95 percent of all people with diabetes. This condition can only be managed for the rest of a person's life.

Within the sample there were few cases of type-1 diabetes also. Type – 1 diabetes used to be called insulin dependent diabetes. Type -1 diabetes occur when the body’s immune system attacks insulin by producing beta cells in the pancreas and destroys them. As a result there is absolutely no production of insulin in the body. They rely completely on treatment with insulin for their survival. It usually occurs in children or young adults, though it can also develop in older adults.

In the sample 58.4 percent of elderly were diabetic. In both institutional and non-institutional settings more men and women had diabetes. More men were diabetic as compared to women. A comparison of elderly in the age group of 65-70 years and 71-76 years was made on the prevalence of disease. Almost equal percent of both the age groups were suffering from diabetes.

It can be said that diabetes is a diseases of lifestyle. So, one has to change the life style before diabetes changes them. Healthy eating and exercise habits are the best way to prevent the disease. Though
there is no cure for diabetes, it can be controlled by suitable dietary interventions.

The life span of an average Indian has also increased and there by contributed to the increased incidence of geriatric osteoporosis. In India, it is projected that by the year 2030, the population of postmenopausal women will be the second highest in the world. Thus, the burden of osteoporosis in the Indian scenario will also be immense.

Osteoporosis is characterized by skeletal fragility, represents a main degenerative health problem, especially in post – menopausal women. It is a disease of ageing. Ageing is one universal factor that brings a risk of osteoporosis and fractures among elderly women. In addition to age, female gender and menopause, body weight and body mass index (BMI) were associated with bone mineral density (BMD) and fracture risk. As evident from the study majority of women were suffering from osteoporosis as compared to men. Osteoporosis was more often reported by women in institutional than non-institutional settings. When the two age groups were compared, it was little higher among 71-76 years group as compared to 65-70 years old respondents. In Indian scenario, women are ignorant about the gradual bone loss in their life time as the majority of elderly suffering from osteoporosis. The current low BMD levels emphasized the need of proper nutrition and health education to reduce the facture risk of geriatric osteoporosis. (Bharthi ,R and Baby ,D.2011).

Among the respondents 15.6 percent of them reported that they are suffering from cardiovascular disease. A higher percentage of women (31.5%) respondents living in institutions had CVD as compared to non-institutional women respondents (6.5%). Men living in institutions (17.0%) reported CVD more often as compared to men
in non-institutions (7.5%). Women reported higher incidences of CVD compared to men.

Age wise comparison of prevalence of geriatric diseases among respondents is shown in figure 5.2.4. In the age group of 71-76 years more number of respondents reported CVD as compared to the age group of 65-70 years. No significant differences were noticed with regard to other diseases.

Figure: 5.2.4: Prevalence of Geriatric Diseases among two Age groups of respondents

Cardio vascular diseases are primary causes of death in older adults. Community studies have revealed high incidences of undetected hypertension in elderly. Screening for hypertension should be a routine part of care. Risk factor modification can prevent cardiovascular events and mortality in older adults and may improve the quality of late life and maintain intact health and function. Current treatment for cardiovascular risk factors, including smoking cessation, lipid lowering, blood pressure control and avoidance of obesity through diet and exercise are under utilized by the elderly.
With regard to the prevalence of gastro intestinal disease 16.1 percent of the respondents reported that they are suffering from gastro intestinal diseases. It was reported by a higher percentage of women respondents from non institutional setting as compared to respondents from institutional setting. This may be due to the type of food served, health status etc. Women at home tend to eat the left outs more often which may be a cause of this condition. But men in general have reported a little higher percentage as compared to women. Kaulagekas and Sathe (2005) opined that nutrition education and extensive counseling regarding intake of adequate, well balanced nutritious food, rich fiber and water in their daily diets will help to prevent most ,if not all of the gastrointestinal diseases in elderly.

There is increased evidence of several impaired gastrointestinal functions with aging. The changes in intestinal micro-flora and reduced intestinal immunity of aged may favor gastrointestinal infections that are frequent in the elderly. (Hebuterne et al., 2003). Numerous gastrointestinal complaints, from vague, indigestion to specific diseases as diverticulitis or peptic ulcer sometimes effectively reduce food intake and curtail the needed nutrients. A variety of other illnesses may limit food intake or utilization. Limited absorption of nutrients curtails nourishment still further.

Numerous psychological and social factors are associated with nutrition intake and health status. It is established that dietary intake lowers with the age due to poor appetite, health status, eating alone and gastrointestinal problems which result in weight loss and malnutrition. (Whitney, 1999; Morley, 2002; Ellroott et al., 2002; Mann, 2002 and Shahar, et al. 2003). This may put them at the risk of micronutrient deficiency and associated complications like cardiovascular diseases, (Floor V.A. ct. al., 2003) osteoporosis (Cooper, L., et al., 2003), constipation and laxative use appears to be as common in older populations worldwide (Hunter et al., 2002). Apart
from infections, lifestyle, habits and diet are critical aspects that
determine the health of the elderly. The nutritional status has a major
impact on diseases and offers great potential for prevention of chronic
diseases like gastrointestinal diseases through healthy lifestyles.

Among the respondents, 16.0 percent of them were suffering
from other diseases viz; respiratory disorders, cancer and also
psychiatric disorders.

In spite of strong family bonds and cultural practices depression
still ranked as the most prevalent psychiatric illness of the aged. At
times depression in old age people is associated with physical illness
and may show a blend of depression, anxiety, irritability and attention
seeking behavior.

As the person ages, the lungs become stiffer and less elastic, the
airways shrink, and the chest muscles weaken. These and other
change causes the total flow of air into and out of the lungs to
decrease. Cigarette smoking, air pollution and pervious occupation
exposures to hazards also have negative effect on lung health.

Cancer is primarily a disease of old age, and that life style plays
a major role in the development of most cancers. Studies have shown
that genetic factors cause only 5-10% of all human cancers, while the
remaining percentage is caused by lifestyle.

When the prevalence of geriatrics diseases among respondents
was studied it was found that 15.3 percent of respondents were not
suffering from any diseases and were healthy. When compared with
gender, it was found that more men respondents reported the absence
of any diseases than women and also respondents living in residences
reported the absences of the diseases than the respondents in
institutional setting. This may be due to the care given by the family
members. Almost equal percentage of the respondents reported the absences of disease in both the age groups classified for the study.

The institutional group of respondents more often reported the condition of hypertension, diabetes mellitus, osteoporosis, cardiovascular disease and other diseases as compared to the respondents from non-institutions. This strengthens the need to inculcate a sense of security among members and a sound health care program in the institutions.

Care of the elderly had till date focused on managing the diseases rather than on the promotion of healthy life style and alleviation of chronic diseases. However, changes in lifestyle and medical care can prevent, postpone, or reverse age related morbidity. Thus strategies to avoid disease and disabilities in elderly are the requirements of the 21st century.

5.3: Prevailing Perception of Health Related Quality of Life (HR-QoL)

The pre test assessment was done using the structure interview schedule on HR-QoL developed by the researcher. The responses on the aspect of different areas categorized in the schedule were analyzed. The results of the analysis from the responses have been discussed below under the headings as follows:

a. Physical Functioning
b. Psychological Emotional Functioning
c. Social Activities
d. Nutritional Aspects
e. Health Care and Habits

a. Physical Functioning

Among the various physical activities, both men and women respondents living in institutional and non-institutional settings
cultivated the habit of walking in their daily routine. The present findings supports the study conducted by Joytsna, et al., (2006) who reported that walking appeared to be the primary form of physical activity that seniors engage in. Walking improves the health and functioning of elderly. As they are ageing, other forms of exercises may be difficult to follow. Elders, giving importance to the health, would like to walk and also like to have company to walk.

It was found that more men and women respondents in institutions used stairs to climb up than non-institutional respondents. This could be the reason that there may be stairs in the institutional set up where they are residing. More number of women respondents in non-institutional setting involved in cooking activity compared to institutional setting respondents. In most of the institutional set up food is prepared and severed for the inmates. Respondents residing in the non-institutional set up are forced to do cooking by themselves or by the family members. In both institutional and non-institutional settings some respondents reported that shopping was never done by them. Few men respondents reported that they always do shopping by themselves compared to women respondents. In the institutional setting equal percentage of men and women respondents reported that they never had the habit of cleaning. This may be due to that authorities of the institution may not tell them to clean the premises whereas, in the non-institutional set up more number of men and women respondents reported that they always had the habit of cleaning. This helps them to engage in their physical activity which helps them to be active in their life.

Few older adults achieve the minimum recommended 30 or more minutes of moderate physical activity on 5 or more days per week. Data from the Center for disease Control and Prevention (CDC) indicate that about 28 percent to 34 percent of adults aged 65 to 74
and 35 percent to 44 percent of adults aged 75 or older are inactive, meaning they engage in no leisure-time physical activity.

National data indicate that few older persons engage in regular physical activity. Only 31 percent of individuals aged 65 to 74 report participating in 20 minutes of moderate physical activity 3 or more days per week, and even fewer (16%) reported 30 minutes of moderate activity 5 or more days per week (U.S.HHS,2000). For those aged 75 and older, levels of activity are even lower: 23 percent engage in moderate activity for 20 minutes 3 or more days per week and only 12 percent participate in such activity for 30 minutes 5 or more days per week.

Vigorous physical activity—activity that causes heavy sweating or large increases in heart rate— is better than moderate activity to maintain cardio respiratory fitness, but relatively few older persons engage in regular vigorous activity (i.e., three times per week or more), and the number declines steadily with age. Estimates for 2000 indicate that, only 13 percent individuals between the ages 65 and 74 reported engaging in vigorous physical activity for 20 minutes 3 or more days per week, and only 6% of those 75 and older reported such exercise (U.S.HHS,2000).

Regular physical activity has beneficial effect on most organ system and consequently it prevents a broad range of health problems. It also aid in the management of problems such as high blood pressure, diabetes, obesity. It can improve the ability to function and stay independent in the face of active problems like arthritis etc.
b. Psychological and emotional functioning:

In the institutional settings both men and women respondents showed higher mean score on anxiety, depression, tension, irritation, inferiority complex, frustration, felling sadness and insecurity in life as compared to non-institutional men and women respondents. The findings of the study by Agarwal and Srivastava (2002) showed emotional states like anxiety, depression and guilt are more in old people living in institutions than non-institutional respondents. Thus symptoms may range from mild to very severe; sometimes depression can also be masked by present mainly with various bodily complaints such as pains and aches. At times depression in old people is associated with serious physical illness and may show a bland of depression, anxiety and feeling of sadness in life. These findings apply to the present study as well. A higher rate of geriatric illness noticed in the institutional setting may be attributed to the higher frequency of depression felt by the institutional group.

It is surprising to know that a lesser number of women respondents from non-institutional set up reported that they get love and affection compared to institutional women respondents although this difference is not indicative of any association between setting and felt love and affection. This indicates that the care, love and affection received from the care takers of institutions was better than/equal to that provided by the family. However, there was significant association between felt love and affection and setting for men. Non institutional setting was more favorable for men.

In the institutional set up women respondents reported more of anger, tension, irritation, inferiority complex frustration feeling of sadness and insecurity in life as compared to other groups. This shows that as the person ages they are not able to cope with the present day living condition, adjust to the generation gap, changing
environment and breakdown of joint family system, as a result, slowly feel neglected and starts feeling of insecurity in life.

As per table 4.3.6 men and women respondents in non-institutional settings showed higher mean score on satisfaction, sense of freedom, feeling of independence, self confidence, ability to take decision and ability to manage alone as compared to men and women respondents of institutional settings. This shows that care, facilities given in institutions are not good enough to give support to build up confidence and independence among the elderly. The security and comfort provided in the family appears to be necessary for good psychological and emotional functioning.

It is surprising to know that in spite of strong family bonds and cultural practices followed in India due to urbanization, modernization youngsters in the family are not taking care of elderly to their expectations. Women respondents in institutional settings showed more of joy and understanding others compared to non-institutional women respondents. They tend to understand others may be because of the same age group. In many of the institutional set up various recreational activities are also conducted to keep them happy.

In both men and women respondents in non-institutional set up a lower mean scores were noticed on dependency, lack of concentration, confusion and loneliness as compared to men and women of institutional set up. In their old age they like to spend time with others and as they are ageing they show the dependency, confusion.

Men from non-institutional set up and women from institutions showed lower mean score in lack of memory. This may be due to dementia leading to gradual deterioration of social and occupational
functioning. Leading to increased forgetfulness, error in judgment and disorientation to persons, places are likely to occur.

Loneliness refers to the subjective state of negative feelings associated with perceived social isolation, a lower level of contact than that desired or the absence of a specific desired companion. It is the unpleasant experience that occurs when a person’s network of social relationships is deficient. As per table 4.3.6, in institutional settings with regard to loneliness majority of men and women respondents reported that they felt loneliness occasionally where as in non-institutional settings majority of them reported that they never felt loneliness. Kanwar P., and Chandha N.K., (1998) conducted a comparative study on the psycho-social determinants of 60 institutional and 60 non-institutional elderly in Delhi. It was found that the mean score of depression and loneliness of institutional elderly were 23.66 and 66.15 respectively as against 20.90 and 46.30 among non-institutional elderly. This revealed the presence of depression and loneliness at a higher rate among institutionalized elderly.

Women were found to be more likely to harbor feelings of depression and loneliness as compared to men (Sahrawat., 2010). But this difference was not statistically significant in the present study was concerned.

**c. Social Activities**

Engaging in social activities helps the elderly to keep them healthy, active and with growing social network and there will be freedom in their life. Men and women respondents living in institutions showed higher mean score in all the social activities viz., visit to place of worship, attending functions, visiting friends, visit to parks and other social activities compared to non-institutional men and women respondents. Respondents of institutions reported that
lots of activities are conducted in their place and they actively involved in all the activities. This shows that old age homes not only give shelter, food and medical services but also keep them occupied in several activities which boost their quality of life. Majority of men and women respondents reported that they always visit places of worship. In many of the institutions they have a separate place for the inmates to worship. In some institutions they were allowed to go to temple in the evening for worshiping. Majority of institution and non-institutional respondents reported that they never attend laughter club, yoga clubs or music classes.

In institutional settings both men and women respondents reported that they sometimes visit the houses of friends and relatives. Social activities can help elderly to maintain a sense of meaning and purpose in life, which will boost emotional well living. A lack of engaging themselves in social activities and too little contact with others can lead to depression and other negative health effects.

d. Nutritional Aspect

In the aspect of nutrition eight conditions of food intake were considered. Men and women respondents of both institutional and non-institutional set up showed higher mean score with regard to eat well cooked and hygiene food. This shows that old age people are giving importance to eat hygienic food. Majority of both men and women respondents of institutional setting reported that they always eat well cooked and hygiene food. This shows that authorities of the institutions are serving hygienic food for the inmates. Even among the men and women respondents in non-institutional settings higher percentage of them reported that they always eat hygienic food.

Both men and women respondents in non-institutional setting showed a higher mean score in the aspects like strictly following diet
plans, taking plenty of water, eating more salads, avoiding eating heavy meals, avoiding under cooked meat and also restricting non-vegetarian foods as compared to men and women respondents of institutional setting.

Eating the right type of food in right amount is important to remain healthy and fit. As age advances, several chronic diseases affect our health. Many of these like obesity, hypertension and diabetes are diet related and hence can be controlled and prevented by modification in diet.

In institutional settings men and women respondents reported that sometimes they follow diet pattern as compared to men and women in non institutions who reported that they always follow diet pattern at home. Consuming more of water every day is a good cultivated habit which is very good for health. Majority of men and women reported that they always take plenty of water every day whereas in the institutional set up more men reported always and women respondents reported sometimes they take plenty of water. With regard to the frequency of avoiding eating heavy meals showed no association with the difference in gender.

With regard to eating salads in their diet, majority of both men and women respondents of institutional set up reported they never include salads in their menu. In the institutions they may be not served salads to eat. Men and women respondents in non-institutional setting reported that they eat salads occasionally and some of them also reported that they never eat salads in their diet. The frequency of eating salads showed no association with gender differences.

Respondents may not have much knowledge about the importance of eating more salads in their diet. Eating more vegetables and fruits in the raw form are the excellent sources of numerous
nutrients especially fiber, minerals and vitamins. These foods are rich in antioxidant nutrients which protect from several diseases.

**e. Health Care and habits:**

Health is of fundamental value for both individuals and the society. Health also improves the quality of life. Health condition of elderly population needs to be assessed not only on the basis of their life expectancy and prevalence of diseases but in particular by functional health status and health related quality of life. Health and care must be an integrated part of the assessment of quality of health care for older people. An attempt was made to study the health care habits followed by respondents. The practices followed among institutional and non-institutional respondents showed both men and women respondents in the institutional setting were better in taking health care and practices like regular health checkups, regular lab test as per advices of the doctor and carrying medicines wherever they go, taking medicines on their own or an advice from the friends as compared to respondents of non-institutional settings. In most of the institutions care of health of the inmates were excellent. They also reported that once a week a doctor visits the center regularly. This is one benefit for elderly living in institutions. It was noted that men respondents of both institutional and non-institutional settings have given importance to take medicine regularly. However, with regards to women, the women in institutions showed good practices of taking medicines regularly than the women from non-institutional setting.

In both institutional and non-institutional settings both men and women reported that they stop taking medicines once the health improves. Though elderly give more importance to home remedies but it was noted that less number of respondents had the habits of trying home remedies.
In the institutional settings majority of both men and women respondents reported that they undergo health checkup always since it was routine health checkup done in the institutions. In non-intuitional settings both men and women respondents reported that they undergo general health checkup occasionally. Institutional setting favored many health care practices although the members are influenced by other inmates when it comes to choice of medicine, stopping medicine with improvement in health or with side effects.

With regard to taking medicines by themselves, regular lab test, carrying necessary medicine wherever they go and taking medicines by self or advice from friends, stopping medicines once the health improves or when there are side effects, trying home remedies showed no association with gender differences.

5.4: Prevailing Perception of Quality of Life of Elderly (WHO-QoL)

The prevailing perception of quality of life of the elderly was assessed using the standard questionnaire developed by the WHO. The responses on the aspects of various domains in the schedule were analyzed and discussed. Quality of life is the individual perception of their position in life in the context of the culture and value systems in which they live and is relation to their goals, expectation, standard and concern. The overall perception of quality of life of men and women respondents is categorized into three levels - low, moderate and high level of quality of life. In institutional setting more number of respondents had high level of QoL as compared to non-institutional set up where more men and women respondents had moderate level of QoL. The findings of the present study contradicts the findings of study by Mathew, et.al., (2009) which revealed that institutionalized elderly showed low level of QoL compared to non-institutionalized ones. It was surprising to know in the non-institutional settings none of the respondents had reported high level of quality of life.
When the QoL was compared for the two age groups, majority of men and women in both the age groups living in institution showed higher level of quality of life. In the category of low level of quality of life women showed low level QoL more often than men. The present study shows an agreement with the finding of Tjvar, et al., (2008) where women reported significantly poorer QoL than men. In the non-institutional setting, majority of men respondents in the age group of 65-70 years showed moderate level of quality of life. The respondents reported that they have sleep problem; some respondents were unhappy with the family relationship; they were also not satisfied with physical environment like noise, pollution etc. The results showed an association between QoL and gender, QoL with the two settings and with age.

It was hypothesized that there will be significant differences in the QoL of men and women in the institutional and non-institutional settings on five domains of QoL. The significant difference found in all the domains of QoL leads to an acceptance of the hypothesis set for the study. For both men and women the score in different areas of QoL were more in the institutional setting as compared to non-institutional setting. A comparison of men and women respondents living in institutional and non-institutional settings on different domains of QoL is shown in figure 5.4.1 and 5.4.2.
Figure: 5.4.1 Comparisons of Men respondents living in Institutional and Non-institutional Settings on different domains of QoL.

Figure: 5.4.2 Comparisons of Women respondents living in Institutional and Non-institutional Settings on different domains of QoL.
**Physical Domain**

In the physical domain there are facets which covered pain and discomfort, energy and fatigue, sleep and rest.

In the institutional settings both men and women respondents showed higher mean score than the non-institutional respondents. Many respondents in the institution reported not much worry about pain, not much discomfort; they do not get tired nor fatigue a problem. Inmates were not given much work in the institutions and care of health was given importance. The respondents living in residences reported that they worry about their health. Many reported that they have sleep problems and they get fatigue quite often. This may be due to the responsibility of taking care of themselves and family. There is a significant differences found between the institutional and non-institutional settings both for men and women. As for the two age groups living in institutional and non-institutional setting, a statistically significant association between the score on physical domain and the setting was noticed in the 65 – 70 year group but not in the older group. All the sub groups showed a better QoL on this domain in the institutional setting.

**Psychological Domain**

In the domain of psychological facets, aspects like - positive feelings, thinking, learning, memory and concentration, self esteem, body image, appearance and negative feelings were included in the study.

In the institutions both men and women respondents showed higher mean score compared to non-institutional respondents. There is a significant difference between the institutional and non-institutional respondents.
Respondents living in institutions showed more of positive feelings of contentment, happiness, joy and enjoyment of good things in life. Negative feelings were not shown. As the person ages, bodily appearance also changes. They showed the acceptance of bodily appearance. The respondent also showed good responses to thinking, learning, and memory. This may be due to various activities given in the old age homes and their participation in the activities.

When the two age groups are compared, higher mean score was found among 65-70 years respondents as compared to 71-76 years respondents.

**Level of Independence**

In the aspect of level of independence various areas are covered like mobility, activity of daily living, dependence on medication, working capacity.

Majority of men and women respondents living in institutions showed higher mean score as compared to non-institutional settings. There is a significant difference in the institutional and non-institutional respondent. The QoL with regard to level of independence was found to be good among the intuitional respondents. They reported that they can carry out the activities which required to be performed on a day to day and also reported that they can do on their own activities which had improved their QoL. Based on their capacity they were working in the institution but there was no pressure on them to do the work.

In the non-institutional setting, may be, the movements required were limited; there was rarely a challenge for new kind of activity and a scope for comparison.
Social Relationships

In the aspect of social relationship different facts were covered like social support, personal relationships.

Even in the area of social relationship both men and women respondents living in institution showed higher mean score as compared to non-institutional settings. When the two age groups classified for the study are compared, higher mean score was found among the 65-70 years age group as compared to 71-76 years. There was not much variation found among the 71-76 years are group of respondents living in institutional and non-institutional settings.

The respondents living in institution reported that they have companionship of the same age group. Love and support given from the caretakers was good. Though there is not much support given from the family they were happy with the social support given by their friends. They were satisfied with the way they spend their time.

Environment

In the environment domain various facets are covered like physical safety, security, home environment, and opportunities for acquiring new information and skills, opportunities for recreation and leisure, physical environment and transport.

Majority of both men and women showed the higher mean score in the domain of environment. There is a significant difference found in the institutional and non-institutional respondents with a higher score in the institutional setting.

The respondents in institutional settings reported that they have enough security and have the good environment. They reported that they are acquiring new information and skills through the various activities, educational program organized in the institutions.
Respondents participated in various leisure time and recreational activities improving their QoL. They were satisfied with the way they spent their time.

When the two age groups are compared, respondents belonging to the age group of 65-70 years scored better as compared to 71-76 years. As they are aging older group had more difficulties.

The ageing of the population along with changes in family structure and shifts in inter-generational relations has brought into focus issues pertaining to the elderly in India. The growing visibility of old age homes in India points to the needs of elderly, which were not recognized earlier. The old age institutions that have sprung up cater to the needs of the elderly from different socio-economic backgrounds. The interest of the elderly to spare their old age in sacred places, the migration of children in search of employment opportunities, their maladjustments in family and poverty of elderly are the major reasons for the elderly to shifts to old age institutions. But since the idea of living in old age institutions is relatively new in India the adjustments process of inmates, theirs feelings of satisfaction, dissatisfaction, expectation provide an interesting field in inquiry. In this study it is seen that the respondents living in old age intuitions had better QoL than the elderly living in residences.

The study further examined the association between the demographic characteristics and QoL of respondents.

**Association between Demographic Characteristics and Quality of Life of Respondents**

The aged population in India is currently the second largest in the world. In modern times for all the practical purposes the individuals who are above sixty years of age are considered to be aged
or seniors citizens of the state. Chronological age of sixty is considered as the beginning of old age. However, growing trends towards greater life expectancy, changing environment, have made people accept them as the becoming of old age at the age of sixty five years. The aged population has various diseases which affect their QoL. In this context an attempt was made to study the association between QoL and demographic characteristic like age, gender role, marital status, educational level, geriatric diseases in terms of their level of QoL.

Age is an important criterion which shows the physical and mental ability of a person. The samples selected were between the age group of 65 to 76 years. With regard to the association between age and QoL of respondents living in institutions, respondents of the age group of 65-70 years had high level of QoL as compared to 71-76 year group. Low level of QoL was shown by the respondents between the age of 71-76 years. This shows that as the person is aging the QoL declines. It was surprising to know that none of the respondents of both the age groups in non-institutional set up showed high level of QoL. The findings showed that age is associated with the three level of QoL in the institutional setting, whereas in the non-institutional setting, age was not associated with the three levels of QoL.

When association between gender and QoL level was studied it was found that in the institutional setting more number of men and women respondents had high level of QoL. When men and women were compared, more number of women had low level of QoL as compared to men respondents. Lee,Y.et.al., (2003)reported that HRQOL among women in general was worse than that of men. This is in agreement with Montazeri, A et. al., (2005) who observed that Iranian women had significantly poorer HR-QOL in all scales compared with men, that can be interpreted as significant gender inequalities in health and HR-QOL.
As observed by different investigators, there was an association between gender and three level of QoL. This was true of respondents in the institutional setting as per the present study. Men and women respondents in non-institutional settings showed moderate level of QoL followed by low level and none of them had high level of QoL. The results showed no association between gender and three level of QoL in the non institutional setting.

The association between marital status of respondents and their QoL level was studied. Institutional respondents who were married showed high level of QoL as compared to respondents of non-institutional setting who showed moderate level of QoL. But in both the groups QoL was better among the married than the widow/ers. This is in agreement with the findings by Jogataee M (2005) who studied the determinants of HR-QOL of elderly in Tehran and found that married people enjoyed a higher HR-QOL than widowed. However, there was an association between three level of QoL and marital status of institutional and non-institutional respondents. Study by Stevens,N.(2001) revealed that elderly women suffer from loneliness more than men. Majority of women there were widowers, live alone, have disabilities and were vulnerable to experience loneliness that led to low level of QoL. However, loneliness was not a contributing factor for low QoL in the present study and it was felt more often in the institutional setting where the respondents have reported a better QoL.

Education helps any individual to improve oneself in all aspects of life. When educational qualification of respondents and QoL were studied, it was found that in institutional settings more number of illiterate respondents showed high level of QoL as compared to the educated category. Because of their ignorance they had given more importance to the activities, services and care given by the institutional setting and improved their QoL. Whereas, in non-
institutional setting, illiterate respondents showed moderate level of QoL. Study by Lasheras, et al., (2001) revealed that the educational level of elderly has strong influence on their QoL.

In both the institutional and non-institutional settings there was an association between the educational level and QoL of respondents although this association is subtle and is in different directions for the two settings.

The traditional family structure in India is undergoing drastic changes. Increasing urbanization, migration, women’s entry into labor forces and many such social changes have chipped away steadily our joint family systems. The concept of family in India where children take care of their parents when they are old has undergone much change. But this concept has been changed due to varied reasons. In nuclear family isolation and separation of children from parents have spawned a situation where older parents are forced to stay on their own or shift to old age homes. Only some of them may be lucky to stay with their children. Their QoL may also depend on how children are taking care of them. Even when having more children due to varied reasons the old parents are on their own or residing in institutions.

The association between number of children in the family and level of QoL of respondents was studied. In the institutional setting the percentage of respondents reporting the QoL to be high was more as the number of children increased. This showed that children were taking care before they have joined the institution. There was an association between three levels of QoL and number of children. In the non-institutional setting the results were found to be reversed. More number of respondents having more number of children showed low level of QoL. There was no association between the level of QoL and number of children among the respondents of non-institutional settings.
Geriatric Diseases and QoL

Ageing is an inevitable biological process and is conditioned by one's habits and attitudes in one's younger years. One's environment, food, pollution etc also affect the quality of life of ageing. Smoking, alcohol, malnutrition etc reduce a person's active life span considerably. Health in old age is also affected by social and economical issues apart from inherent disadvantage of the biological decline. Many diseases usually afflict the old; hypertension, diabetes, osteoporosis, coronary heart diseases etc., in turn affects the quality of life. Some predisposing factors for these conditions are obesity, stress, alcohol, smoking and heredity. Regular physical exercise and good nutrition greatly help to control these degenerative disorders.

With regard to the association between geriatric diseases and QoL of respondents, an attempt was also made to study the association between the geriatric diseases and levels of QoL of respondents. In institutional settings majority of them suffering from various geriatrics diseases showed higher level of QoL followed by moderate and low level of QoL. It was surprising to know that respondents with no diseases showed low level of QoL. When having diseases, may be the respondents have taken more care of their health in management of the disease. The results showed an association between three levels of QoL and diseases. In non-institutional setting, more number of respondents suffering from geriatric diseases and respondents not suffering from any diseases showed moderate level of QoL. Walker's (2007) study revealed that multiple chronic diseases in elderly were found to have considerable negative impact on QoL. The present study contradicts this finding by Walker. The results showed no association between three level of QoL and diseases among the non-institutional respondents.

Further the respondents suffering from different geriatric diseases and their QoL level was studied. The number of respondents
with hypertension was more among both the age groups of institutional set up as compared to non-institutional respondents. When compared with level of QoL none of the respondents of both the age groups in the non institutional setting had high level of QoL. There is an association between hypertension and quality of life only in institutional respondents. Further more women with hypertension in both the settings reported a low QoL.

When the association between QoL of respondents with diabetes was studied, the results showed more number of respondents living in institutional setting had diabetes as compared to non-institutional settings. More number of respondents in institutional settings had high level of quality of life and none of the respondents had high level QoL in the non-institutional setting. Majority of the men and women respondents living in non-institutional set up showed moderate level of QoL. The study supported the finding of Begum and Roopa (2012) who reported that men and women respondents with diabetes showed moderate level of QoL. There is an association between diabetes mellitus and QoL of respondents only in institutional settings. The study by Wondell, P., (2000) reveled that elderly diabetic had poorer HRQOL. But the findings of the current study contradict the findings by Wondell and indicate that QoL was high for specially men respondents with diabetes. Proportionally more women with diabetes in both the settings reported a low QoL.

Osteoporosis causes bone – thinning and affect mostly women aged sixty plus and causes fracture of different parts of the skeleton. This is evident in the results showing more number of women suffering from osteoporosis as compared to men. In the institutional settings more number of respondents showed high level of QoL and none of the respondents of non-institutional settings showed high level of QoL. The respondents of institutions reported that they are taken care of by providing those medicines, in some of the old age
homes free samples were also distributed and bone mineral density test (BMD) was also done during the medical checkup. There is an association only found among women respondents of 65-70 years in the non-institutional settings where more number of women with osteoporosis reported low level of QoL.

The QoL of respondents with cardiovascular diseases was studied. It was again in institutional setting both men and women of both age groups showed high level of QoL as compared to both men and women of both age group in non-institutional setting showed moderate level of QoL. The finding of the study conducted by Davoud et.al., (2013) revealed elderly living in institutions suffering from chronic diseases showed a decrease in quality of life.

The number of respondents with gastro intestinal diseases revealed an association between QoL and gastro intestinal disease among men respondents of 71-76 years age group in both institutional and non-institutional settings. There was no association between level of QoL and respondents with gastro intestinal disease in the age group of 65-70 years in both institutional and non-institutional settings.

The pattern of association between different diseases and QoL vary for men and women and for institutional and non institutional settings.

5.5: Impact of the Educational Program as an Intervention on Perception of QoL

A module of educational program was developed by the researcher on various aspects of health to improve QoL of elderly. This was carried out on a sample of 80 respondents which consisted of 40 men and 40 women belonging to the age group of 65 to 76 years residing in residences in and around the area of Vidyaranyapura, in
Bangalore urban district. The respondent also expressed a desire to know more about geriatric diseases and ways to manage the disease. The effect of educational program as an intervention was evaluated with a test retest design by administering WHO-QoL and SIS on HR-QoL developed by the researcher before and after the intervention.

1. Quality of life Assessed through WHO-QoL

The efficiency of the educational program is evident from the enhanced post test performance of the experimental group of respondents on overall level of perception of QoL of men and women respondents accepting the hypothesis set for the study. The pre and post test performance of men and women respondents and also of the two age groups on overall perception of QoL have been depicted in figure 5.5.1 and 5.5.2

![Figure: 5.5.1: Comparison of Pre and Post test scores on Quality of Life of Men and Women respondents (WHO-QoL)]
Figure: 5.5.2 Comparison of Pre and Post test scores on Quality of Life of the two Age Group of Respondents (WHO-QoL)

A pretest and post test performance on various domains of quality of life was also studied. The results revealed that there is an impact of interventional program on respondents with significant improvement in all the domains of QoL accepting the hypothesis set for the study. The results are graphically represented in figure 5.5.3.

Figure: 5.5.3: Comparison of Pre and post test scores of respondents on various domains of Quality of Life (WHO-QoL)
a. Physical Domain:

The benefits of physical activity, tips for active physical life, laughter therapy, yoga and awareness of higher risk of health problem that can be prevented were included in the educational program. Some of the respondents reported that they had body pain. With intervention, people responded to pain differently and with differing tolerance and acceptance of pain. This is likely to affect its impact on QoL. For the benefit of respondents a session on acupressure was also conducted.

Enhancement in physical health can be attributed to the attitudinal change and the regularity in the practice of exercises by the experimental group of respondents during and after the participation in the educational program which had specified sessions on importance of physical exercise and acupressure demonstration for the relief of body pain.

The amount of sleep and rest and problems in this area affect the person’s QoL. Sleep problems might include difficulties in going to sleep, waking up during the night, waking up early in the morning and being unable to go back to sleep and lack of refreshment from sleep.

The session focused on the importance of sleep and ways to alleviate this problem helped them to overcome this to some extent. The value showed remarkable difference between the pre and post test sessions and highlighted the efficacy of the educational program.

b. Psychological Domain:

A person’s views, feelings, thinking, concentration, body image and appearance are seen as an important part of this domain. The aspect of self esteem concerned with a person’s feeling of self-efficiency, satisfaction with oneself and control was also included in
this domain. In the educational program these were emphasized and instructions were given as to how to overcome psychological problems and stress in the daily life. In addition, the focus on positive feelings had their impact on the person’s day-to-day functioning.

The respondents of experimental group who had been subjected to the educational program were in a better position to change their attitude and gained knowledge for the betterment of their life. They were also influenced because of opportunity given to them to interact with people with similar problems and a congenial atmosphere created to share their opinions and clarify their doubts.

An increase in the scores of respondents from pre test to post test showed on improvement in their psychological domain. The present findings are on par with the findings of Mehta Pallavi, et.al., (2010) who reported an improvement in the psychological aspect among elderly after attending an intervention program.

c. Level of Independence

This domain focuses on the person’s general ability. Whether the person is dependent on others for mobility and the like that affect QoL. This facet also expresses a person’s ability to perform usual daily living activities. The degree to which the respondents depended on others to help them in their daily activities is also likely to affect their QoL.

The educational program was framed considering the physical activity, importance of active and healthy ageing. Positive attitude towards doing their activities independently was enhanced, motivating them to do their own household activities and to improve their working capacity.
The enhancement in the level of independence domain is clearly evident from the distinctly enhanced scores of the experimental group of respondents.

**d. Social Relationship**

The domain of social relationship focused on the extent to which elderly feel the companionship, love, support they desire from the intimate relationships in their life. This shows how much a person feels the support, commitment and encouragement from family and friends. It is acknowledged that sexual activity is difficult to enquire about and some respondents did not respond to these questions. Some of the respondents reported that they had little or no desire for sex and this had no adverse affects on their QoL.

The respondents of experimental group have considered their social functioning to be excellent during the post test as compared to pre test.

**e. Environment:**

This domain has to do with a person's sense of safety and security from physical harm. A threat to safety or security might arise from any source and will affect the person's QoL. The respondents reported that the quality of the immediate neighborhood around the home is also important for better QoL. The attitude of elderly towards the physical environment which includes noises, pollution, climate, general aesthetic of the environment had influence on the QoL of respondents. The findings support the study conducted by Yahayer Nurizan, et.al., (2012) regarding the impact of housing environment and neighborhood safety influence on the quality of life among elderly.

The respondent's ability, opportunities and inclination to participate in leisure time activities, relaxation techniques was also
emphasized in the intervention program. The physical environment including safety and transport facilities available depends on the area of their residence and utility of these resources.

In the intervention program importance of recreation and how to use leisure time were dealt with and many recreational activities were also conducted.

Respondents started enjoying their lives to some extent by expanding their leisure time activities as seen by the enhanced score in the post test of experimental group of respondents.

2. Health Related QoL assessed through SIS

The SIS on health related QoL developed by the researcher was administered before and after the intervention program.

An increase in the mean score in all the aspect of SIS viz., physical, psychological, emotional, social, food and nutrition, health care and habits as well as diet pattern was noticed in the experimental group of respondents and showed the impact of educational program.

Impact of intervention program on various dimensions of health related quality of life is represented in figure 5.5.4
Figure: 5.5.4. Comparison of Pre and Post test scores of respondents on various dimensions of HR-QoL assessed through SIS

An increase in the score during post test as compared to pre test was noticed among both men and women respondents in all the dimensions of health and QoL assessed through structured interview schedule. Men and women respondents differ in the extent of improvement found in the area of physical activities, psychological and emotional functioning and health care and habits where men respondents showed greater improvement.

A compression of pre and post test assessment of men and women respondents on different dimension of health related quality of life measured through structured interview schedule has been depicted in figure 5.5.5 and 5.5.6.
Figure: 5.5.5 Comparison of Pre and post test assessment of Women respondents on different dimension of Health Related QoL (SIS)

Figure: 5.5.6 Comparison of Pre and post test assessment of Men respondents on different dimensions of Health Related QoL (SIS)

In the educational program the respondents were enlightened with regarded to the importance of physical activity, active and healthy ageing, food groups and awareness about their nutrient content and their function. Nutrition in old age and tips for healthy
eating were also given for the respondent’s diet pattern, various geriatric diseases and ways to manage the diseases. Awareness was brought in to learn healthier ways to manage stress and the role of humor, laughter yoga, meditation and relaxation techniques. The gain in mean score in all the areas of health and quality of life showed enhancement in the pre-existing knowledge in all these dimensions of health.

With the effect of educational program, significant increase in the score during the post test was noticed in the two age groups. This showed the impact of intervention on health related knowledge, attitude practices in all the dimensions. In all the aspect respondents belonging to the age groups of 71-76 years showed a greater improvement as compared to 65-70 years age group of respondents. May be the need for motivating themselves for better care was felt by the older group with their declining abilities. The study supports the findings of the research conducted by Ganguly, (2000). The elderly from 66-70 and above 71 years had better functional abilities as compared to early age cohorts. The elderly above 71 years age group might have been active from the beginning and tended to be the same, while the 60-65 years group might have experienced more changes because of the use of the technologically advanced equipments which limits energetic participation in any activity and in turn leads to disuse and degeneration. Avlund, et al., (1995) found that, the large number of 75 year old managed the tasks without tiredness and without need of help. This implies that, as the age increased, the elderly had better functional abilities.

A comparison of pre and post test scores on different dimension of health related quality of life of 65-70 years respondents and 71-76 years respondents is graphically represented in figure 5.5.7 and 5.5.8.
Figure: 5.5.7 Comparison of the Pre and Post test assessment of 65-70 years Age group of Respondents on different dimensions of Health Related QoL (SIS)

Figure: 5.5.8. Comparison of the Pre and Post test assessment of 71-76 years Age group of Respondents on different dimensions of Health Related QoL (SIS)
The improvement in health and QoL of respondents is evident of the impact of educational program as an intervention for both the age groups. However, the extent of improvement showed by the two age groups differ significantly on physical, psychological, social, food and nutrition, health care and habit and diet pattern only, in emotional domain it was not significant in the two age groups of respondents.

Research indicates that increased physical activity may help to prolong good health and to preserve the quality of life in elderly. (Wannamethee, et.al., 1998; Kaplan et.al., 2001). Research also shows that combining physical activity and maintaining dietary habits are effective in improving health-related quality of life (Hassan et. al., 2003). The findings of the present study support these observations made by the earlier researchers.