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Health Status of the Ageing Tiwas of Morigaon district, Assam

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ABSTRACT: - *Health is a significant aspect of ageing. Advancement of age is generally associated with a decline in functional capacity of different organ systems, the manifestation of which is apparant at a later stage of life. The present study is an attempt to study the health status of the ageing Tiwas of Morigaon district of Assam. Health, in the study has been examined from the following aspects – (1) Prevalence of disease, (2) Functional ability, (3) Impairments, (4) Nutritional status, and the (5) availability of health care facilities. The sample consists of 134 male and 134 female Tiwas in the age group of 50 years and above. Body pain, high blood pressure and respiratory disorder are the common diseases found to be prevalent among them. Functional ability which is an indicator of dependence is found to decline with age. Prevalence of locomotor impairment is more indicating a decline in functional ability. Prevalence of undernutrition is found to be high. 34.85% females and 26.15% males are undernourished.. Moreover, Health facilities available to them are not found to be adequate.*

Keywords: *Ageing, health, nutritional status, functional ability, health care facilities.*

INTRODUCTION:- Ageing is a progressive and cumulative process of physiological change occurring over time and affected by a variety of factors. It is concerned primarily with the changes that occur between the attainment of maturity and death of an individual. This universal and natural phenomenon is a lifelong process, meaning that human development never stops (Cavanaugh, Fields, 2006). Health is a significant aspect of ageing. Advancement of age is generally associated with a decline in functional capacity of different organ systems, the manifestation of which is apparant at a later stage of life.

People do not become old all of sudden. It is a gradual process where human capabilities slowly and gradually decline (Birren and Cunningham, 1985). The biological process of ageing includes all genetic and health related factors that affect development. Vital body functions decline with age. Health is the level of functional or metabolic efficiency of a living organism. The World Health Organizations based in Geneva, Switzerland that oversees health problems

and interventions around the World, defined health as "a state of complete social, psychological, and physical well-being" (WHO, 1948).

Ageing is a biological phenomenon but is firmly embedded in a cultural context, and concepts of illness as they relate to age vary across cultures (Lock 1998). The basic biomedical model of ageing and health sees age –related declines in health as being the result of several factors like increased susceptibility to disease due to loss of vitality; extended exposure over a lifetime to stresses causing disease; and the accumulated effects of wear and over usage of various body parts (Wiley and Allen, 2009).

Diseases refer to a physiological alteration that impairs function in some ways. Disease is a more or less "objective" measure of health that can be used cross-culturally. Some common disease and their causes are not unique to human and several may co-occur simultaneously or derive from interactions among causes. Medical anthropology has divided the diseases into different types like Injury, infectious diseases, nutritional diseases, genetic diseases, chronic diseases, and psychological diseases (Wiley and Allen, 2009).

The environment is also an important factor influencing the health status of individuals. Good health is crucial for the elderly to maintain independence, autonomy and to remain productive that leads to improved quality of life in their old age (Ramachandran and Radhika, 2013). This paper has looked into the health status of the ageing Tiwas of Morigaon district of Assam.

Review of literature:- Study of health constitute an important aspect of the study of ageing. Disease prevalence, functional ability, nutritional status, etc. constitute important aspects of an ageing individual. Studies have shown that disease in old age are mostly chronic and multiple in nature (Chakarborthy 2005, Sengupta and Chakarborty, 1982, Mahapatra, 2011). Moreover the disease prevalence increases with age. Diseases of the circulatory system, hypertension, disorders of the musculo skeletal system, and connective tissues (Bhatia, *et al.* 2007) are found in both elderly men and women. Women tend to suffer more from musculo skeletal diseases in relation to men (Bhatia *et al.2007,* Sarmah and Choudhury, 2010). Mahapatra (2011) in his study on elderly women found the prevalence of hypertension, diabetes as well as other old age diseases like dementia, general weakness, parkinson's disease and gynecological problems.

Functional health is the ability to carry out activities and tasks that people do on a daily basis (Alam and Mukherjee, 2005). Sarmah and Choudhury (2010) studied 280 Assamese elderly community living in Guwahati city. They found that more women needed assistance in both personal care activities as well as instrumental ADL than men. Moreover the need for care show positive relation with age. Kamar *et al*., (2011) studied functional abilities of the aged in Dharwad district of Karnataka state with a sample size of 500 elderly from three age cohorts viz; 60-65, 66-70 and 71^{+} years. The majority of the respondents in 60-65 years age cohorts belonged to GDTC (gradual decline towards changes). The elderly from 66-70 and 71+ year had better

functional abilities as compared to early age cohorts. 57.4% the elderly in 60-65 years belonged to GDTC, 37% of the 66-70 years and 23.2% of the 71+ years belonged to GDTC. The association between age cohorts and level of functional ability was significant.

Nutritional status of a population is an important tool to study health of any population. It is believed that tribal populations are at higher risk of under nutrition because of their dependence on primitive agricultural practices and irregularity of food supply (Kapoor *et al.,* 2009). But Khongsdier (2001) in a study of the nutritional status of 21 adult male population of North-East India, found that the tribals have the best health with lowest level of malnutrition (19%) followed by the Hindu group (40%). The highest proportion of malnutrition was found among the Hindu group (52%). Borah and Sarmah (2012) studied nutritional status among the adult Karbi women, and 17.65% were found to be undernourished. Das and Das (2010), in their study among the male Kaibartas of Barpeta Town, found the prevalence of undernutrition to be much higher (48.4%). Jain et al, (2010) studied nutritional status of elderly by Mini Nutritional Assessment Scale in Old Age Homes of Jaipur, and found that majority (55.5%) of the elderly people were at the risk of malnutrition. Saikia and Mahanta (2013) studied the nutritional status of elderly in terms of Body Mass Index in Urban Slums of Guwahati city. They found the prevalence of both undernutrition (22.22%) and as well as overnutrition (12.5%). And found that the nutrition status was positively associated with socio-economic condition as well as the number of meals the elderly consumed per day.

Disability and impairments leading to immobility among the elderly is a cause of concern for the ageing individual as it adversely affects their quality of life. It increases their risk of dependence and loss of autonomy. Darshan *et al.,* (1987) studied 85 aged people in various pockets of slum area scattered around the city of Hissar. They found that disability was not prevalent among all elderly and reported the impairment of vision to be the most common form of impairment.

MATERIAL AND METHODOLOGY

The present study has been conducted in two villages, of Morigaon district, Assam. The villages are Sidhabari and Buragaon. It is a cross sectional study. The sample consists of 268 individuals (134 males and 134 females), in the age group of 50 years and above. They have been divided into four age cohorts viz; 50-59, 60-69, 70-79 and 80^{+} years.

A structured schedule has been used to collect the information relating to health status, prevalent diseases, functional ability, impairment and nutritional status. For the assessment of nutritional status, stature and body weight were measured. Stature has been measured using the anthropometric rod and weight with the help of weighing machine. BMI has been calculated using the formula-$\mathbf{BMI} = \frac{\mathbf{Weight(kg)}}{\mathbf{Height(m^2)}}$. For assessment of nutritional status 4 men and 2 women were not fit enough to be measured for stature and weight and so could not be assessed for nutritional status. The population has been classified for nutritional grading following the WHO

classification for Asian population. Individuals who have BMI less (<18.5kg/m^2) are underweight, BMI ranging between (18.5-22.9kg/m^2) are normal and individuals have BMI (> 23.0kg/m^2) are classified as overweight.

People:-The Tiwas were originally known as Lalungs. They are mainly found in the district of Nagaon in Central Assam. They are spread in Kapili, Mayang, Morigaon, Bhurbandha, Kathiatali, and Kamrup development block areas of Nagaon district. There are a few Tiwa villages in Dhemaji and Lakhimpur district, Titabar area of Jorhat, Sonapur area of Kamrup districts of Assam as well. They are of Mongoloid origin.

The people are mainly agriculturalist. Those who do not have agricultural land, are involved in other semi-skilled jobs like, masonary, carpentry, electrical work, pulling rickshaw, etc. Women are predominantly housewives. The educational level of the people is low.

The Tiwas are patrilineal. Their social organization is based on a twelve clan structure. In marriage, they follow clan exogamy and tribe endogamy. Their staple food is rice. Their two major meals consists of rice and vegetables. Meat, fish and eggs are also included in their menu. Fowl and pork are their delicacies. They take locally brewed rice beer ("zu") almost daily. It is an integral part of their socio-cultural life.

Objectives of the study:- The present study aims to understand the health status with the following objectives.

1. Examine the prevalence of acute and chronic diseases
2. Understand the functional ability of the sample population.
3. Look into the prevalence / occurence of impairments
4. Assess their nutritional status.
5. Look into the availability of health care facilities.

RESULT AND DISCUSSION

The age, sex distribution of the 50 years and above Tiwa population has been shown on table 1. The population has been shown in four age categories of ten years interval. Most of the respondents belong to the 50-59 years age group (53.36%). With increase the proportion of people in each age category declined.

Prevalence of diseases: - Prevalence of disease has been assessed from two aspects. One is the occurrence of acute diseases and other is occurence of chronic diseases. In assessing the prevalence of diseases, morbid conditions which have been diagnosed by a medical practitioner, has been taken into consideration. This is because unless a sickness is explained by a physician, an individual may not be able to identify the disorder. For minor irritations and troubles, people generally do not visit a physician. For acute conditions, respondents' report has been taken to identify the prevalence of disease. Doctor's diagnosis has been used for identification of chronic

condition. Among elderly people, the belief is that most of their health problems are the result of their growing age and as such do not attend to them.

In assessment of acute conditions prevalence was looked into with reference for the month prior to field work. The most common acute diseases which are found in the elderly are- fever, nausea and weakness, gastritis, jaundice, dizziness and diarrhea (Table 2). Some had to undergo surgery of gall bladder and eye during the last one month. One woman has detected a lump in her right breast and another person suffered a pressure stroke. Majority of males (54.47%) and females (47.76%) did not suffer from any disease during the last one month. There is not much gender difference in the prevalence of fever, nausea and weakness and dizziness. The prevalence of gastritis found to be more among the females (7.46%) than males (2.98%). 1.49% of males and 2.98% females were suffering from diarrhoea. 3.73% of males suffered from jaundice.

If we looked into the prevalence of acute diseases from the point of view of age, then it is seen that among the higher age, the frequency of the diseases is found to be more. From the sixth decade as we move up towards the higher ages, the frequencies become higher or more people reported to be sick during the last month.

The chronic ailments which are found to be prevalent among the elderly are- respiratory disorders, high blood pressure, low blood pressure, heart problem, diabetes, body pain, nerve problem, TB, cancer, etc.(Table 3). The chronic condition has been classed into nine main categories. Those who are suffering from high blood pressure low blood pressure, heart problem are included in the category cardio-vascular disease. Musculo-skeletal disorder includes back pain, pain in whole body, lower limb pain, upper limb pain, joint pain. Diseases of nerve, tuberculosis (TB) chronic desentry, cancer, paralys, etc. are placed under the category of others, as their occurrence is found to be less. Musculo-skeletal disorder was more prevalent among the females (38.81%) than males (21.64%). Among the males, the prevalence of cardio-vascular condition was present in 8.96% subjects and the highest percentage was found in the age group 70-79. Cardio-vascular condition was found to be higher among the females (10.45%). The prevalence of others diseases were found similar in both the sexes (6.72%). The prevalence of diabetes is more among the males (4.48%) than females (1.49%). Some of the ageing persons were found to be having more than one disease. 1.49% of the males have both diabetes and cardio vascular disorders. Some of the males (2.29%) and females (0.75%) have both respiratory and musculo skeletal disorder. Likewise, diabetes and musculo-skeletal disorder also occur together but in less numbers of males (2.24%) and females (0.75%).

Functional abilities in activities of daily living: - The present study looks into how much the elderly are able to continue to carry on or perform different activities essential too daily living. Personal care tasks are called activities of daily living (ADL). Four essential activities of daily life were taken into consideration under personal care activities. These are chewing, bathing and

dressing, moving out and bladder control. The objectives of assessing functional ability was to see the dependence level of the elderly. For each activity the elderly were asked to categorize their ability as follows. 1. No limitation, 2. Limited ability, 3. Unable to perform.

Household management tasks are called instrumental activities of daily living (IDAL). There activities were the house hold management tasks and the actives include preparing of meals, shopping and doing light house work. The respondents were asked to give their response in the same three options as activities of daily living.

In the activities of daily living, there is some difference based on both age and gender. The male from the seventh decade are found to have some limitation in chewing, but women report to (table 4) has limitation from much later. Much limitation is not seen in areas of bathing and dressing. In regard to moving out men and women face limitation from around the same age but the number of women facing limitation is higher than men. Their proportion also gradually increases with increase in age. In the 80+ age group 33% of the men are unable to move out. Bladder control is another difficulty faced by ageing people. People are found to face difficulties from the 50-59 age group and their proportion increases with age. (Table 4) More women reported (59.70%) to having difficulty in bladder control than men. The family members generally daughter-in-laws, unmarried daughters and even unmarried sisters are found to take care of the persons who are in need of care.

Instrumental activities of daily living has been assessed with relation to three activities. They are preparing meals, going out for shopping and doing house work. (Table 5). May be because of the cultural practice of not requiring to cook, more men reported to facing limitation and from an earlier age. Some of the women (41.18%) were able to continue with limited ability upto the eight decade. 57.46% of the total women are able to prepare meals without any limitation as compared to 8.21% men. With regard to shopping, men and women show an inverse association. Most of the men (71.64%) did not find any limitation. Most of the women are unable to perform this activity. Even after ageing persons retire from active work, they are generally found to keep themselves engaged in some activity or others. Elderly men generally keep making households articles out of bamboo and women keep themselves occupied in light household religious work or other works like looking after grandchildren, etc. Most of them are found to be able to involved in doing light house work. It is only in the 80+ age group that most of the elderly are found no longer to be able to do light household work. There is a gradual increase in number of people who are unable to work with age. Between the seventh and the eight decade, there is a sharp rise in the proportion of both elderly men and women who are no longer able to work.

Impairments :- (Table 6) Prevalence of impairments have been looked into among the ageing Tiwas. Impairments of vision, hearing and locomotor impairments has been examined.

Locomotor impairment is found to be more. This form of impairment can be said to be influenced by both age and sex. Women are found to be facing limited ability but in case of men, some are found to be completely unable to move. This inability has mostly resulted from falls. Limitation in locomotion show an association with age in both the sexes. Impairment of vision is an age associated decline and though its prevalence is less among the Tiwas, shows a positive association with age.

Nutritional status:-The nutritional status of the population has been assessed from Body Mass Index (BMI). The categorization into the different nutritional grades has been done following WHO standards for Asian population. Chronic Energy Deficiency (CED) malnutrition is prevalent among 26.15% of the elderly males, 54.62% show normal body weight and 19.23% is overweight. In case of females (CED) malnutrition is prevalent in 34.85% of the total females. Prevalence of (CED) malnutrition is much higher among female than male. 50.76% show normal BMI and 14.39% are overweight. The percentage of women showing normal body weight and overweight is less than men (Table 7).

Among the males (CED) malnutrition is found to be high among the highest age category, i.e. among those who are above 80+years of age. When we look at the age wise prevalence of malnutrition among the males and females, then it can be said that prevalence of undernutrition increases with age and prevalence of overweight is there in the younger ages. In the 80^{+} age group, there are no overweight males and females. In the sixth and seventh decade most of the people show normal body weight but with increase in age, their proportion gradually declines.

The gender difference in the nutritional status among the population is not found to be statistically significant. However in prevalence of all three grades of nutritional status, some amount of difference is seen. More women are undernourished than men and overweight women occur in lesser number than men. Proportion of women showing normal weight is also less than men. Among women, prevalence of undernutrition is higher than men in all the age groups except the 80^{+}age category. But there is a tremendous rise in proportion of underweight men and women in this age group with increase among the men being very high.

Health care facilities:-In most societies health is also viewed as a social right; thus organization of health care and its delivery to individuals reflects not only necessary social concern but also social policy. The need for care, that is, the presence of an illness as poor health condition, has been found to be primary factor influencing the decision to see a doctor (Anderson, 1968; Mechanic.1976). Health care is the right of every individual. The Tiwas of Sidhabari, Burha Goan are not availing proper modern health care facilities. The villagers of said villages have to depend on private health care services. One government hospital is available in the town of Morigaon which is located at a distance of approximately 4 kms from the villages. The villages have Sub-centers from where they can avail health acre facility which can be termed as first aid.

The sub-centers are run by one ANM (Auxiliary Midwife Nurse) and it is unable to provide all health care facility to the villagers. The respective ANM provide immunizations for newborn and keep records of birth and death. Sometimes they provide some common medicine for seasonal disorders. People are aware of local traditional healers called "ojha", and home remedies, which they use for taking care of their medical needs.

Comparison with other communities: - Studies on ageing of population are very few in the North-Eastern part of India. The finding of the present study has been compared with some of the available studies of the region to assess the status of the Tiwas with that of the other communities.

Nutritional status and blood pressure among the adult Karbi women of Kamrup district were studied by Borah and Sarmah (2012). The sample of their study consisted of women 20 years and above. For comparison with our present study, we looked into the 50 years and above age category. The prevalence of undernutrition in this age group of Karbi women was found to be 17.65%. However, the prevalence of undernutrition in the present study is 34.85% which is much higher. In both the studies the mean value of BMI and eight show a decline with age.

A study on age change with regard to anthropometric characteristic was under taken by Devi and Bagga (2006) among the Meetei women of Manipur and Assam. The nutritional status and disease prevalence were looked into in addition to other features of Meetei females of Assam and Manipur. If we looked into the disease prevalence among the meetei women of Assam, it is seen them suffer from more than one major illness at a time. More the half (52%) of the Meetei women of Assam were found to be hypertensive, whereas among the Tiwa women prevalence of hypertension is much lower (21.37%) and diabetes is almost negligent (1.49%).

If we compare the anthropometric parameter of weight, BMI, among the two populations, then we see that the mean BMI and weight of the Tiwa women is higher than the Meetei women. However, the increase associated with these two parameters and age is seen in both the population.

Sarmah and Choudhury (2010) in their study on functional ability and prevalence of diseases among the Assamese community living in Guwahati found the prevalence of diseases like musculo-skeletal disorder, hypertension, diabetes, respiratory diseases to be much higher as compared to the ageing Tiwa community. The same diseases occur among the Tiwas but their frequencies are much less. This could be because in rural areas, the access and availing of health care facilities is very negligent. In most cases, diseases remain undiagnosed. In assessing the functional ability, the rural Tiwas elderly persons are found to be much more independent in comparison to their urban dwelling Assamese community.

Das and Das (2010) studied food, nutritional status and disease of the 55 years and above male Kaibartas of Barpeta Town, Assam. 34.8 per cent of the male Kaibartas of Barpeta Town were found to be hypertensive and the prevalence of undernutrition quite high (48.4%). In comparison 16.54% of the Tiwa males are hypertensive and undernutrition is prevalent among 16.15%.

Conclusion: - Prevalence of disease is found to be less among the people. It may be because they do not go doctors very much. Diseases may therefore main undetected. The most common acute disease that are found to be prevalent among the elderly are fever, nausea and weakness and gastric. Most common chronic disease is musculo-skeletal which is found to be the high among the females. Cardio-vascular condition is more prevalent among the females and diabetes among male. Respiratory disorder occur more in males. The elderly from the higher age categories require assistance in their personal care activities. Women need more assistance than men in household management tasks. Women can continue to work on household management. Men, on the other hand, are able to carry on outdoor activities. Prevalent of locomotor impairment occur more than the other types of impairments. Among the males locator impairments is higher. The prevalence of CED malnutrition is high among the ageing Tiwas and women are more vulnerable to malnutrition. Prevalence of malnutrition increases with age.

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Table: 1 Distribution of 50^{+} Tiwa population by age and sex

Age group	Male	Female	Total
	No (%)	No (%)	No (%)
50-59	70 (52.24)	73 (54.46)	143 (53.36)
60-69	33 (24.63)	38 (28.36)	71 (26.49)
70-79	22 (16.42)	17 (12.68)	39 (14.55)
80^{+}	9 (6.71)	6 (4.49)	15 (5.59)
Total	134 (50.0)	134 (50.0)	268 (99.99)

Table: 2 Age, Sex Distribution of the sample by prevalence of acute diseases

Age group	Gender	Name of the acute diseases						
		Fever, nausea and weakness	Gastric	Jaundice	Dizziness	Diarrhoea	Others	No disease
50-59	M	9 (12.86)	2 (2.86)	3 (4.29)	2 (2.86)	2 (2.86)	8 (11.43)	44 (62.86)
	F	16 (21.92)	4 (5.48)	-	3 (4.11)	1 (1.37)	6 (8.22)	43 (58.90)
60-69	M	7 (21.21)	-	2 (6.06)	3 (9.09)	-	3 (9.09)	18 (54.54)
	F	8 (21.05)	3 (7.89)	1 (2.63)	3 (7.89)	2 (5.26)	5 (13.16)	16 (42.10)
70-79	M	9 (40.91)	-	-	1 (4.54)	-	2 (9.09)	10 (45.45)
	F	7 (41.18)	3 (17.65)	-	1 (5.88)	1 (5.88)	1 (2.63)	4 (23.53)
80^{+}	M	6 (66.66)	2 (22.22)	-	-	-	-	1 (11.11)
	F	5 (83.33)	-	-	-	-	-	1 (16.67)
Total	M	31 (23.13)	4 (2.98)	5 (3.73)	6 (4.48)	2 (1.49)	13 (9.70)	73 (54.47)
	F	36 (26.87)	10 (7.46)	1 (0.75)	7 (5.22)	4 (2.98)	12 (8.95)	64 (47.76)

Table: 3 Age, Sex Distribution of the sample by prevalence of major chronic diseases

Age group	Gender	Name of the chronic diseases								
		Respiratory disorder	Cardio-vascular	Diabetes	Musculo-skeletal disorder	Diabetes & Cardio-vascular	Respiratory & Musculo-skeletal	Diabetes & Musculo-skeletal	Others	No disease
50-59	M	4 (5.71)	4 (5.71)	4 (5.71)	14 (20.0)	1 (1.43)	2 (2.86)	2 (2.86)	-	39 (55.71)
	F	2 (2.74)	7 (9.59)	1 (1.37)	29 (39.72)	-	1 (1.37)	1 (1.37)	5 (6.85)	27 (36.99)
60-69	M	2 (6.06)	4 (12.12)	1 (3.03)	7 (21.21)	1 (3.03)	1 (3.03)	1 (3.03)	4 (12.12)	12 (36.36)
	F	1 (2.63)	6 (15.79)	-	12 (36.36)	-	-	-	3 (7.89)	16 (42.10)
70-79	M	-	3 (13.64)	1 (4.54)	5 (22.73)	-	1 (4.54)	-	4 (18.18)	8 (36.36)
	F	1 (5.88)	1 (5.88)	1 (5.88)	8 (47.06)	-	-	-	-	6 (35.29)
80^{+}	M	-	1 (11.11)	-	3 (33.33)	-	-	-	1 (11.11)	4 (44.44)
	F	-	-	-	5 (50.0)	-	-	-	1 (16.67)	2 (33.33)
Total	M	6 (4.48)	12 (8.96)	6 (4.48)	29 (21.64)	2 (1.49)	4 (2.29)	3 (2.24)	9 (6.72)	63 (47.01)
	F	4 (2.99)	14 (10.45)	2 (1.49)	52 (38.81)	-	1 (0.75)	1 (0.75)	9 (6.72)	51 (38.06)

Table: 4 Age, Sex Distribution as per their ability to perform Personal Care Activity

Age Group	Gender	Chewing			Bathing/Dressing			Moving outside			Bladder Control		
		1	2	3	1	2	3	1	2	3	1	2	3
50-59	M	70 (100)	-	-	70 (100)	-	-	70 (100)	-	-	65 (92.86)	5 (7.14)	-
	F	73 (100)	-	-	73 (100)	-	-	73 (100)	-	-	72 (98.63)	1 (1.37)	-
60-69	M	26 (78.79)	7 (21.21)	-	33 (100)	-	-	31 (93.93)	2 (6.06)	-	31 (93.94)	2 (6.06)	-
	F	35 (92.10)	2 (5.26)	1 (2.63)	37 (97.37)	-	1 (2.63)	33 (86.54)	4 (10.53)	1 (3.03)	35 (92.10)	2 (5.26)	1 (2.63)
70-79	M	8 (36.36)	13 (59.09)	1 (4.54)	21 (95.45)	-	1 (4.54)	16 (72.73)	5 (22.73)	1 (4.54)	19 (86.36)	2 (9.09)	1 (4.54)
	F	14 (82.35)	3 (17.65)	-	16 (94.12)	1 (5.88)	-	12 (70.59)	5 (29.41)	-	14 (82.35)	3 (17.65)	-
80^{+}	M	1 (11.11)	6 (66.66)	2 (22.22)	6 (66.66)	1 (11.11)	2 (22.22)	3 (33.33)	3 (33.33)	3 (33.33)	4 (44.44)	2 (22.22)	-
	F	3 (50.0)	3 (50.0)	-	6 (100)	-	-	3 (50.0)	3 (50.0)	-	4 (66.66)	2 (33.33)	-
Total	M	105 (78.36)	26 (19.40)	3 (2.24)	130 (97.01)	1 (0.75)	3 (2.24)	120 (89.55)	10 (7.46)	4 (2.98)	119 (88.80)	11 (8.21)	4 (2.46)
	F	125 (93.28)	8 (5.97)	1 (0.75)	132 (98.51)	1 (0.75)	1 (0.75)	121 (90.29)	12 (8.95)	1 (0.75)	125 (93.28)	8 (59.70)	1 (0.75)

Table: 5 Age, Sex Distribution of the sample as per their Instrumental Activity to perform Daily Living

Age Group	Gender	Preparing meals			Shopping			Light house work		
		1	2	3	1	2	3	1	2	3
50-59	M	9 (12.86)	28 (40.0)	33 (47.14)	65 (92.86)	5 (7.14)	-	57 (81.43)	13 (18.57)	-
	F	44 (60.27)	7 (9.57)	22 (30.13)	8 (10.96)	22 (30.14)	43 (58.90)	49 (67.12)	22 (30.14)	2 (2.74)
60-69	M	1 (3.03)	10 (30.30)	22 (93.93)	25 (75.76)	7 (21.21)	1 (3.03)	19 (57.58)	14 (42.42)	-
	F	27 (71.05)	10 (26.32)	1 (2.63)	1 (2.63)	10 (26.31)	27 (71.05)	21 (55.26)	13 (34.21)	4 (10.53)
70-79	M	1 (4.54)	4 (18.18)	17 (77.27)	5 (22.73)	14 (63.34)	3 (13.64)	8 (36.36)	10 (45.45)	4 (18.18)
	F	6 (35.29)	7 (41.18)	4 (23.53)	-	2 (11.76)	15 (58.23)	5 (29.41)	5 (29.41)	7 (41.18)
80^{+}	M	-	-	9 (100)	1 (11.11)	3 (33.33)	5 (55.55)	2 (22.22)	2 (22.22)	5 (55.55)
	F	-	4 (66.66)	2 (33.33)	-	-	6 (100)	-	3 (50.0)	3 (50.0)
Total	M	11 (8.21)	42 (31.34)	81 (60.45)	96 (71.64)	29 (21.64)	9 (6.72)	86 (64.18)	39 (29.10)	9 (6.72)
	F	77 (57.46)	28 (20.90)	29 (21.64)	9 (8.75)	34 (25.37)	91 (67.91)	75 (55.97)	43 (32.09)	16 (11.94)

Table: 6 Age, Sex Distribution of the sample by their prevalence of impairment

Age group	Gender	Name of the impairment					
		Visual impairment		Hearing impairment		Locomotor impairment	
		Low vision	Cataract	Hearing	Partial	Limited ability	Unable to perform
50-59	M	1 (1.43)	-	-	-	-	3 (4.28)
	F	2 (2.74)	-	-	-	-	-
60-69	M	1 (3.03)	2 (6.06)	-	-	-	2 (6.06)
	F	3 (7.89)	2 (5.26)	1 (2.63)	1 (2.63)	1 (5.26)	1 (2.63)
70-79	M	2 (9.09)	2 (9.09)	-	-	5 (22.73)	1 (4.54)
	F	2 (11.76)	2 (11.76)	-	-	5 (29.41)	-
80^{+}	M	1 (11.11)	1 (11.11)	1 (11.11)	1 (11.11)	3 (33.33)	3 (33.33)
	F	-	2 (33.33)	-	-	3 (50.0)	-
Total	M	5 (3.73)	5 (3.73)	1 (0.75)	1 (0.75)	8 (5.97)	9 (6.72)
	F	7 (5.22)	6 (4.48)	1 (0.75)	1 (0.75)	10 (7.46)	1 (0.75)

Table: 7 Age, Sex Distribution of their nutritional status according to BMI (Kg/m^2)

Age group	Gender	Nutritional status		
		Underweight (<18.5kg/m^2)	Normal body weight (18.5- 22.9kg/m^2)	Overweight (>23.0kg/m^2)
50-59	M	16 (22.86)	39 (55.71)	15 (21.43)
	F	23 (31.51)	40 (54.79)	10 (13.70)
60-69	M	7 (21.21)	21 (63.64)	5 (15.15)
	F	12 (32.43)	19 (51.35)	6 (16.22)
70-79	M	6 (28.57)	10 (47.62)	5 (23.81)
	F	7 (43.75)	6 (37.5)	3 (18.75)
80$^+$	M	5 (83.33)	1 (16.67)	-
	F	4 (66.67)	2 (33.33)	-
Total	M	34 (26.15)	71 (54.62)	25 (19.23)
	F	46 (34.85)	67 (50.76)	19 (14.39)
χ^2 value	Total	2.332	0.392	1.095

Statistically not significant