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A Prospective Study to Assess the Health Problems Due to Ageing on Geriatrics at Various Hospitals, Palakkad District

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ABSTRACT

Aim: Old age is usually associated with increasing health problems. The burden of chronic diseases was high among the elderly. This study was conducted to report the prevalence of common age related health problems among elderly from various hospitals of Palakkad district. **Methods**: A total of 482 elderly people aged 65 years and above were included in the study. The study was designed as a prospective observational study. Demographic details, personal habits, past and present medical history were collected by using specially prepared questionnaire and data entry form. **Results:** The result showed that the maximum number of geriatrics (40.87%) belonged to the age group of 65-69 years, health problems was more common in males (56.22%) than female (43.77%). Whereas 132 (27.38%) were illiterate and 348 (72.19%) were literate. COPD(25.31%), DM(18.25%), HT(16.39%), CAD(10.99%) are the most common health problems among the present elderly population. Difficulty in vision was observed in (67.21%) of study subjects while this proportion was (23.44%) of difficulty in hearing. Out of 482 elderly, 183(37.96%) have physical impairment, 119(24.68%) have depression, and 74(15.35%) have memory impairment. **Conclusion:** COPD, DM, HT, CAD were prevalent problems in geriatrics. Vision impairment, physical impairment, hearing impairment also found in significant proportion of subjects. Memory impairment, depression, sleep disturbance also major problems in old age.

INTRODUCTION

Ageing is a natural process. It is defined as a deterioration of physiological functions with age, including decrease in productivity. Cognitive function declines associated with ageing. Cognition includes all high level functions carried out by the brain, including comprehension and formation of speech, visual perception and construction, ability to calculate, attention, memory and functions such as planning and problem solving. Today, worldwide there are 600 million persons aged 60 and over this total will double by 2025 and will reach virtually two billion by 2050 when there will be more people aged 60 and over than children under the age of 15.The study of physical and physiological changes which are incident to old age is called gerontology. The care of the aged is called clinical gerontology or geriatrics. Information on the health of elderly Indians is limited, through a fair amount of data exist on their socio-economic status. Limited information is available on their nutritional and mental health status while little or none is available on their disability and functional status. Many health problems are known to increase with age and this demographic trend may lead to an increase in the absolute number of health conditions in the population. In addition, because there is a growing body of evidence that older people are at risk for multiple, co-morbid conditions, health care seeking will probably also increase. Most diseases in aged are chronic in nature such as cardiovascular diseases, arthritis, diabetes, stroke, cataract, deafness, cancer, chronic infections etc. Most often elderly may suffer from multiple chronic conditions, visual defects, hearing impairment and deterioration of speech which can cause social isolation. Present study carried out in 65 and above aged people to find out most common health problem of geriatrics, which we hope will help in developing health services for older persons in India.

MATERIALS AND METHODS

The study was conducted on General Medicine Department of Karuna Medical College, Chittur, Palakkad and Sai hospital, Puthiyapalam, Olavakkode. The study was designed as a prospective observational study. A specially designed data entry form & questionnaire was used for collecting patient details. Total of 482 patients are included in this study.

RESULTS

Table 1-Age wise distribution

Age	Number of Patients (n) =482	Percentage (%)
65-69	197	40.87
70-74	98	20.33
75-79	89	18.46
80-84	62	12.86
85-89	32	6.63
>89	4	0.82

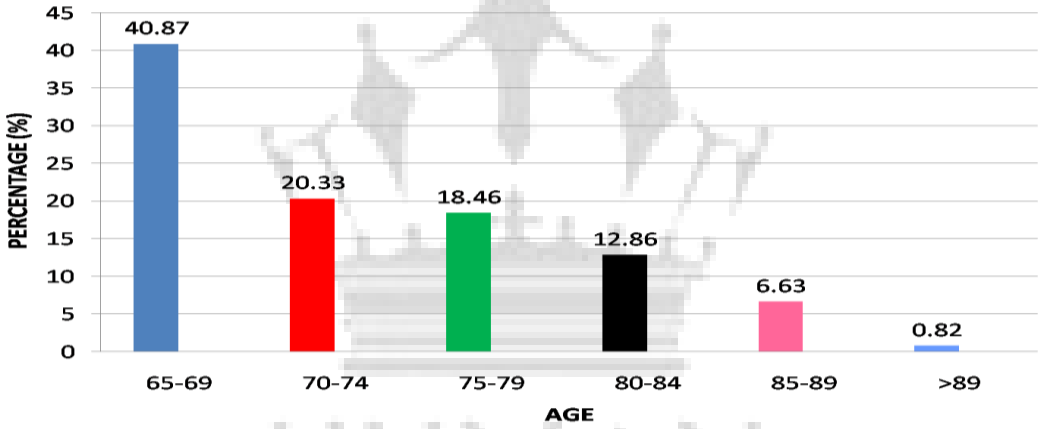

Figure 1: Age wise distribution

Table-1 shows, the maximum number of geriatrics (40.87%) belonged to the age group of 65-69 years and number went on reducing as the age advanced. This observation indicates that the tendency of elderly to seek medical help goes on decreasing as the age advances.

Table 2-Gender wise distribution

Gender	Number of patients (n) =482	Percentage (%)
Male	271	56.22
Female	211	43.77

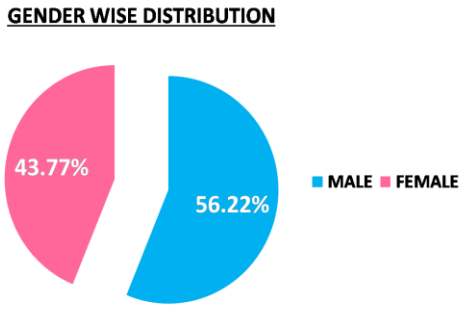

Figure 2: Gender wise distribution

Gender wise distribution shows that, 56.22% were males and 43.77% were females and the health problems were more prevalent in males than in females.

Table 3-Educational status wise distribution

Education	Number of patients (n =482)	Percentage (%)
Illiterate	134	27.80
Primary	132	27.38
High school	173	35.89
College	43	8.92

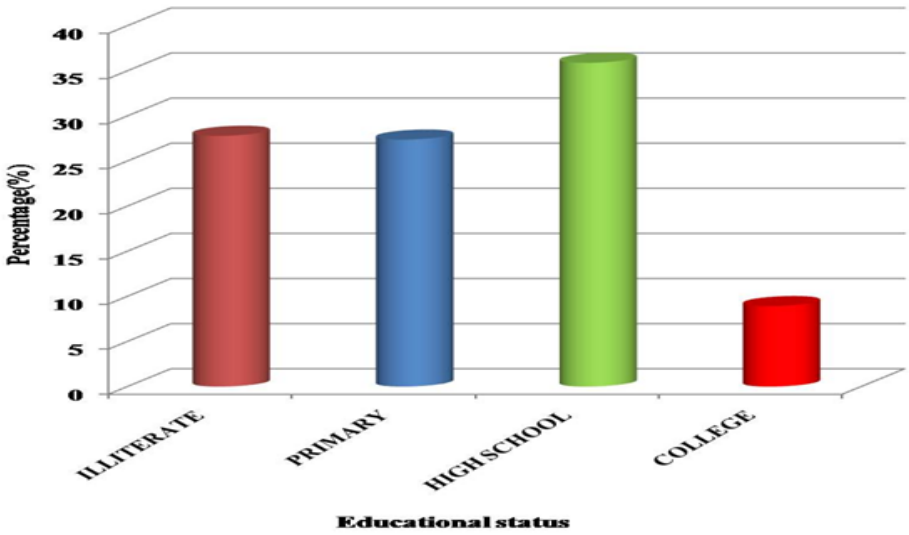

Figure 3: Graph educational status

According to the study 72.19% were literate and 27.80% were illiterate.

Table 4-Marital status wise distribution

Marital status	Number of patients (n =482)	Percentage (%)
Married	369	76.55
Widowed	113	23.44

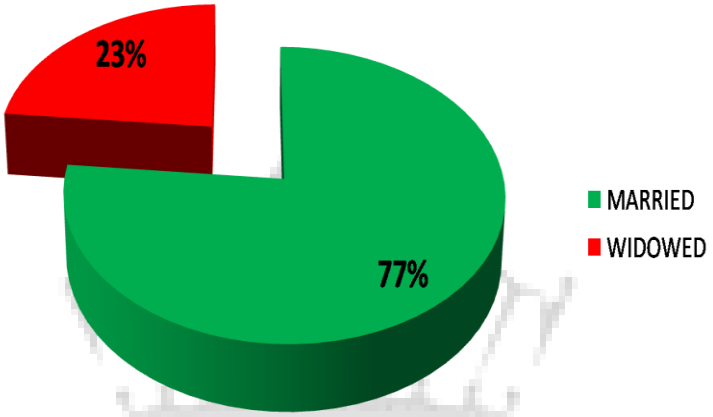

Figure 4: **Marital status wise distribution**

The marital status shows that 76.55% were married and 113 (23.44%) were widowed.

Table 5-Alcohol consumption wise distribution

Alcohol consumption	Number of patients (n =482)	Percentage (%)
Alcoholics	63	13.07
Previous alcoholic	114	23.65
Non-alcoholic	305	63.27

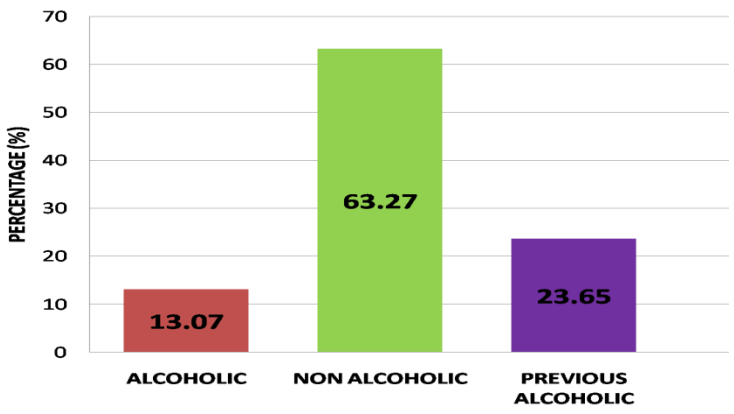

Figure 5: Alcohol consumption wise distribution

Table-5 shows that out of 482 elderly, 63 (13.07%) were alcoholic and 305(63.27%) were non alcoholic.

Table 6-Smoking wise distribution

Smoking	Number of patients (n =482)	Percentage(%)
Smoker	98	20.33
Previous smoker	117	24.27
Non- smoker	267	55.39

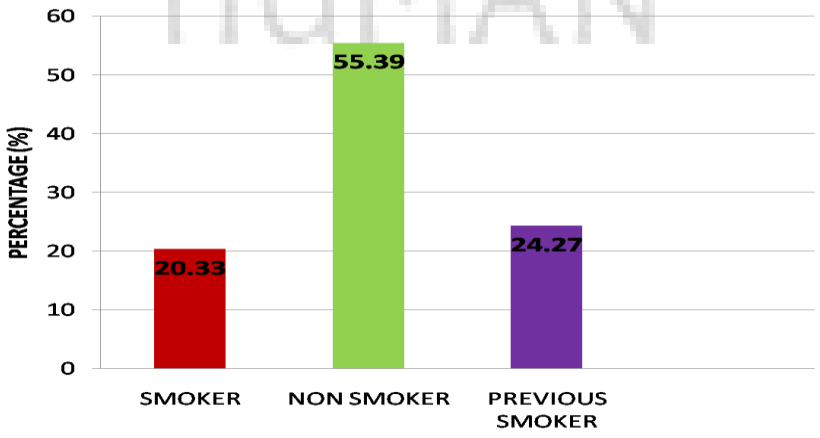

Figure 6: Smoking wise distribution

Table-6 shows that out of 482 elderly, 98 (20.33%) were smokers and 267 (55.39%) were non smokers.

Table 7-Distribution based on perception about health

Health status	Number of patients (n =482)	Percentage (%)
Good	105	21.78
Excellent	5	1.03
Poor	372	77.17

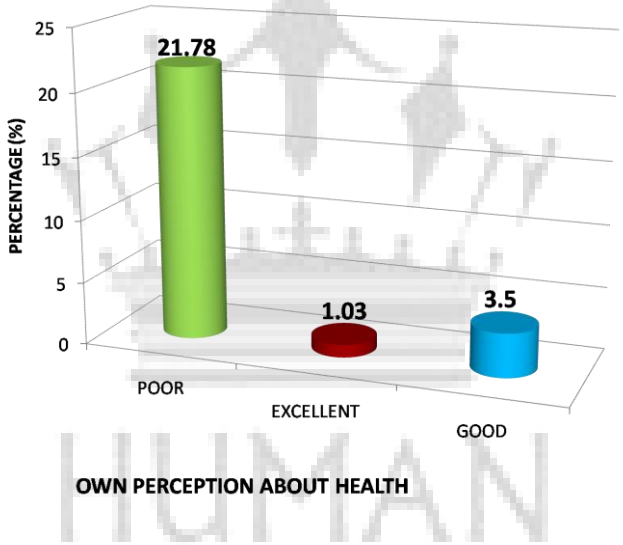

Figure 7: Perception of health wise distribution

Table-7 shows that out of 482 elderly, 372 (77.17%) have poor opinion about their own health and 372 (77.17%) have excellent opinion about their own health.

Table 8-Health problem wise distribution

Health problems	Number of patients (n =482)	Percentage (%)
HT	79	16.39
DM	88	18.25
COPD	122	25.31
CAD	53	10.99
Stroke	27	5.60
RA	2	0.41
OA	13	2.69
Anaemia	4	0.82
Hypothyroidism	6	1.24
TB	6	1.24
Pneumonia	2	0.41
CCF	18	3.73
Asthma	34	7.05
Peptic ulcer	8	1.65
Parkinson's disease	6	1.24
UTI	5	1.03
Epilepsy	9	1.86

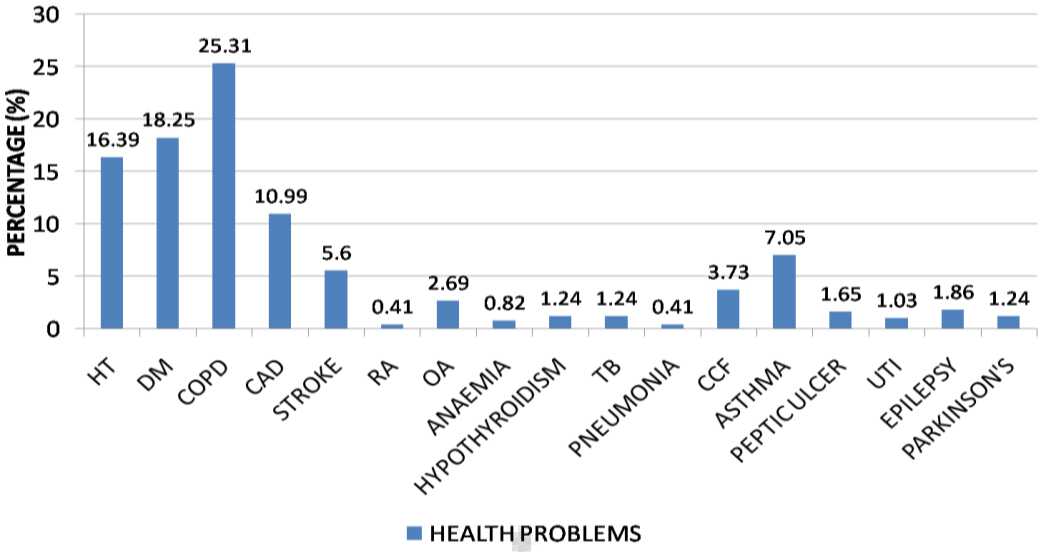

Figure 8: Health problem wise distribution

The above table shows that the most common health problems found in geriatric patients were Chronic Obstructive Pulmonary Disease (25.31%), followed by Diabetes Mellitus (18.25%) and Hypertension (16.39%).

Table 9-Distribution based on problems related to health system

Health Systems	Number of patients (n =482)	Percentage (%)
Musculoskeletal system	15	3.11
Respiratory system	164	34.02
Gastrointestinal system	8	1.65
Central nervous system	42	8.71
Endocrine system	94	19.50
Cardiovascular system	150	31.12
Excretory system	5	1.03
Circulatory system	4	0.82

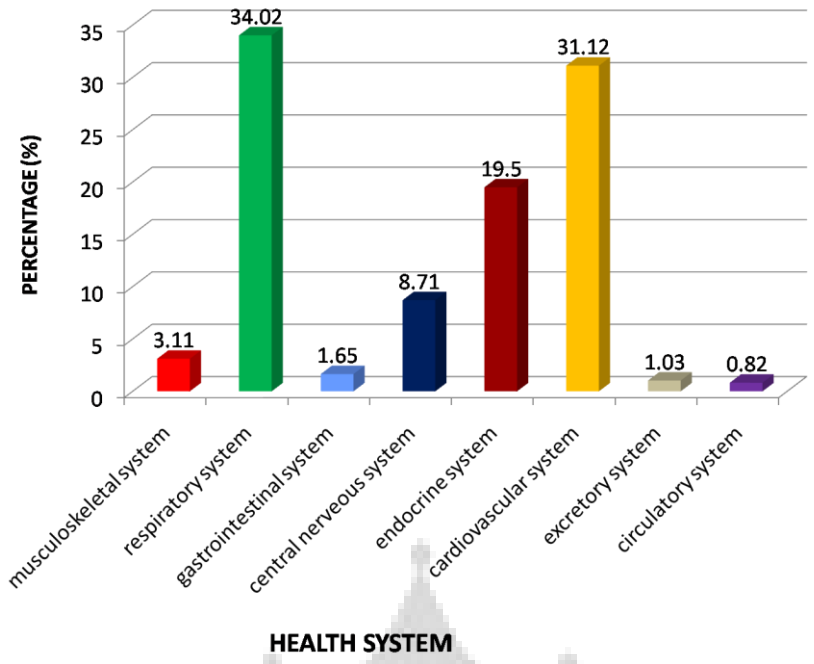

Figure 9: Health system wise distribution

Table-9 shows that out of 482 elderly, respiratory system related problems 164 (34.02%) , cardiovascular system 150 (31.12%) and endocrine system 94 (19.50%) related health problems were common.

Table-10 Distribution based on physiological problems

Physiological problems	Number of patients (n =482)	Percentage (%)
Functional impairment	183	37.96
Vision impairment	324	67.21
Hearing impairment	113	23.44

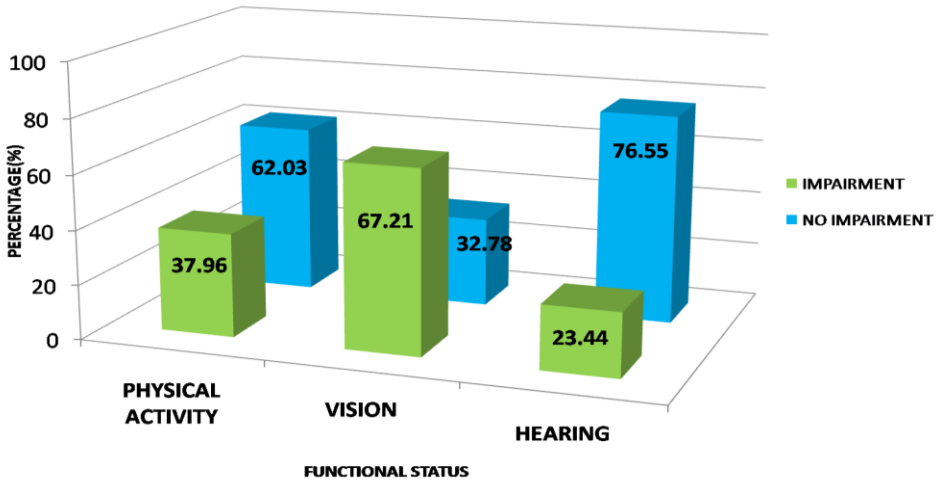

Figure 10: Physiological problem wise distribution

Table-10 shows the common age related physiological problems. Out of 482 elderly, 324 (67.21%) have vision impairment, 183 (37.96%) have physical impairment and 113 (23.44%) have hearing impairment.

Table-11 Mental status wise distribution

a) Depression wise

Mental status	Number of patients (n =482)	Percentage (%)
Depression	119	24.68
No depression	363	75.31

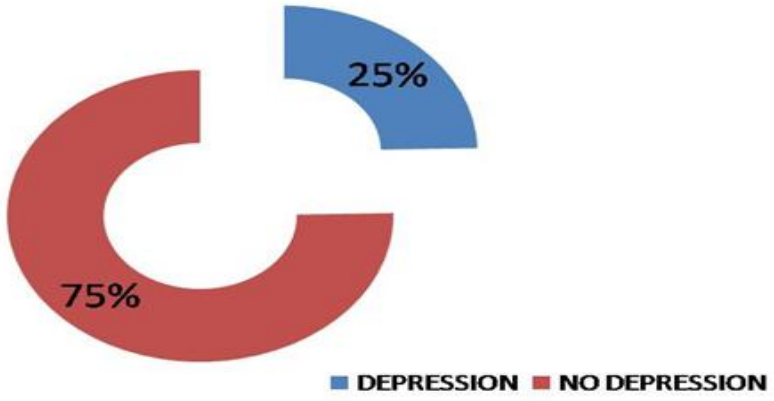

Figure 11a: Depression graph

Table-11,a) shows that out of 482 elderly, 119 (24.68%) have depression.

b) Memory impairment wise

Mental status	Number of patients (n =482)	Percentage (%)
Memory impairment	74	15.35
No memory impairment	408	84.64

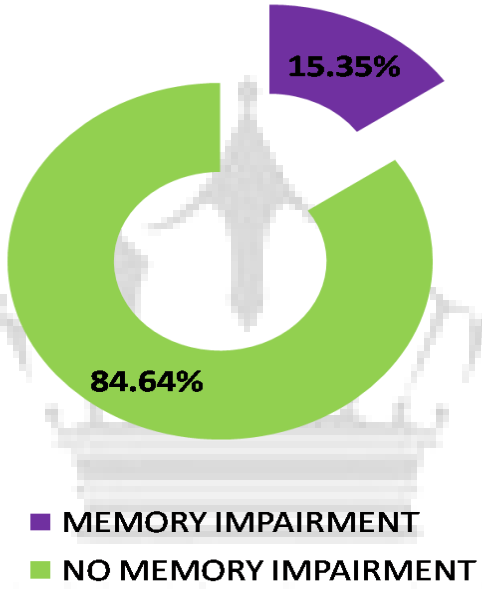

Figure 11b: Memory impairment wise distribution

Table-11,b) shows that out of 482 elderly, 74 (15.35%) have memory impairment.

Table-12 Urinary incontinence wise distribution

	Number of patients (n =482)	Percentage (%)
Urinary incontinence	135	28.02
No urinary incontinence	347	71.99

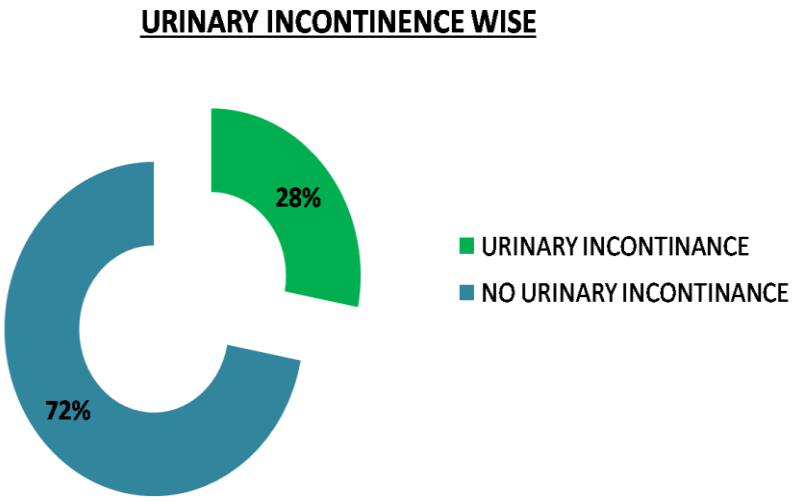

Figure 12: Urinary incontinence wise distribution

Table-12 shows that out of 482 elderly, 135 (28.02%) have urinary incontinence.

Table-13 Sleep pattern wise distribution

Sleep pattern	Number of patients (n =482)	Percentage (%)
Disturbed	273	56.63
Not disturbed	209	43.36

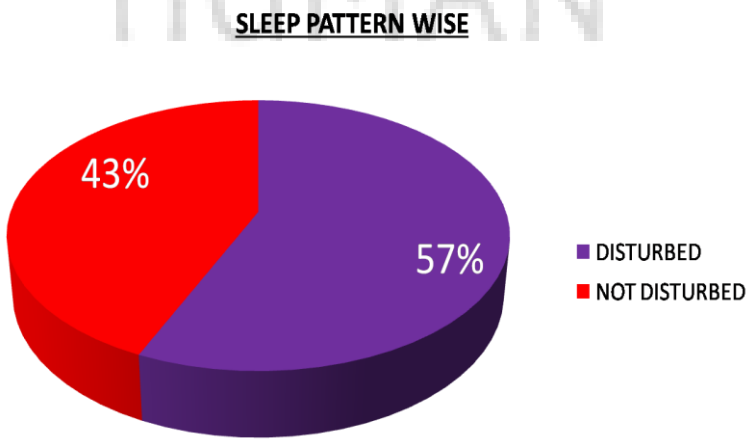

Figure 13: Sleep pattern wise distribution

Table-13 shows that out of 482 elderly, 273 (56.63%) sleep disturbed.

Table-14 Co-morbidity wise distribution

Co-morbidity	Number of patients (n =482)	Percentage (%)
No co-morbidity	183	37.96
1 co-morbidity	183	37.96
2 co-morbidity	97	20.12
3 co-morbidity	17	3.52
Above 3 co-morbidity	2	0.41

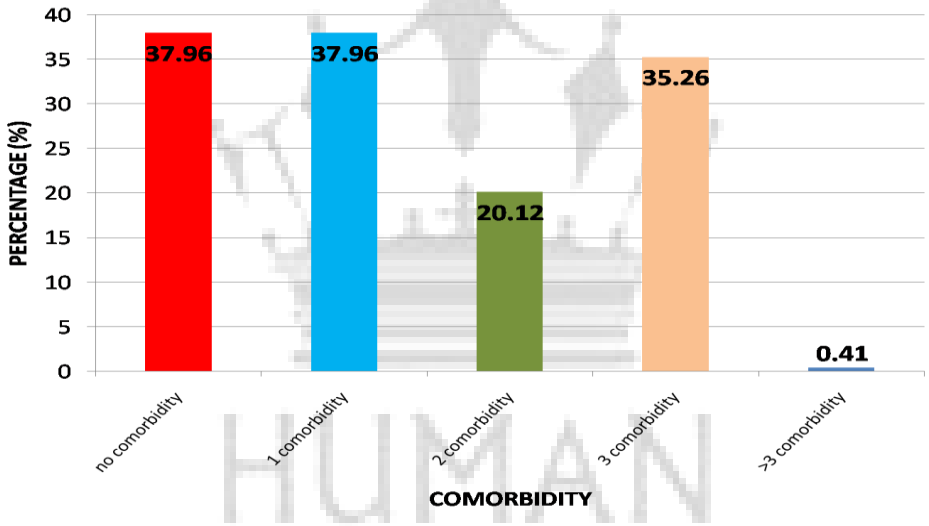

Figure 14: Co-morbidity wise distribution

Table-14 shows that out of 482 elderly, 183 (37.96%) have only one co-morbidity, 97 (20.12%) have two co-morbidity, 17 (35.26%) have three co-morbidity and 2 (0.41%) have above three co-morbidity.

Table-15 Distribution based on previous hospitalization

Previous hospitalisation	Number of patients (n =482)	Percentage (%)
Yes	219	45.43
No	261	54.14

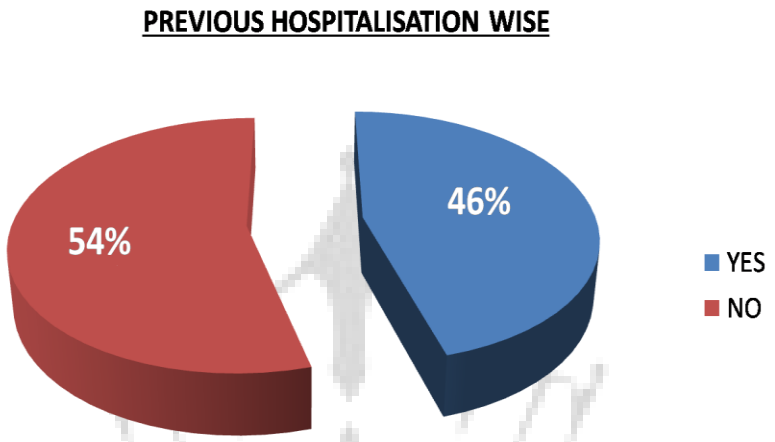

Figure 15: Distribution based on previous hospitalization

Table-15 shows that out of 482 elderly, 219 (45.43%) were hospitalized within 1year.

DISCUSSION

The prime goal of the study was to assess the health problems due to ageing among geriatric patients. A total of 482 cases collected from the study site based on inclusion and exclusion criteria using the data collection form and questionnaire.

Table-1 shows the age wise distribution of elderly, the maximum number of geriatrics (40.87%) belonged to the age group of 65-69 years and number went on reducing as the age advanced. This observation indicates that the tendency of elderly to seek medical help goes on decreasing as the age advances. Makwana et al., study also showed similar result.

Table-2 shows gender wise distribution of elderly. This study showed that health problems were more common in males (56.22%) than female (43.77%). Makwana et al., study also showed that out of 128 people, 53.33% were males and 46.67% were females.

Table-3 shows education wise distribution. This showed that out of 482 elderly, 132 (27.38%) were illiterate and 348 (72.19%) were literate. Makwana et al. study showed that same result.

Table-4 shows the marital status that out of 482 elderly, 369 (76.55%) were married and 113 (23.44%) were widowed. The results show similarities with the study conducted by Kamlesh Joshi et al.

Table-5 and 6 show social habits of elderly patients. This showed that out of 482 elderly, 63 (13.07%) were alcoholic, 305 (63.27%) were non alcoholic, 98 (20.33%) were smokers and 267 (55.39%) were non smokers. GK Medhi et al. study also showed the similar result.

Table-7 shows the own perception about health by geriatrics, results shows that 372 (77.17%) have poor opinion about their own health and 372 (77.17%) have excellent opinion about their own health. Flávia de O M Maia et.al , also conducted the same study on geriatrics and found that they have good perception about their health.

Table-8 shows health problems on geriatrics which show that that out of 482 elderly, COPD (25.31%), DM (18.25%), HT (16.39%), CAD (10.99%) were common observed health problems. GK Medhi et al. were conducted a study which shows that COPD, HT are the most common health problems in geriatrics.

Table-9 shows system wise distribution of health problems. Out of 482 elderly, respiratory system related problems 164 (34.02%), cardiovascular system 150 (31.12%) and endocrine system 94 (19.50%) related health problems were common. Jaiganesh D et al. also conducted a study showed that musculoskeletal, respiratory related problems are common in elderly.

Table-10 shows the common age related physiological problems. Out of 482 elderly, 324 (67.21%) have vision impairment, 183 (37.96%) have physical impairment and 113 (23.44%) have hearing impairment. Kamlesh Joshi et al. study shows that 48.5% have vision impairment, 31.6% have hearing impairment. Flávia de O M Maia et al. study shows that physical impairment will occur in elderly people.

Table-11 a & b shows the mental status of elderly. This showed that out of 482 elderly, 119 (24.68%) have depression, 74 (15.35%) have memory impairment. Kamlesh Joshi and a Choudhary Mahesh study also discussed about depression and memory impairment on geriatrics.

Table-12 shows urinary incontinence wise distribution of elderly. This showed that out of 482 elderly, 135 (28.02%) have urinary incontinence. Choudhary Mahesh et al. study also discuss urinary incontinence on geriatrics.

Table-13 shows that out of 482 elderly, 273 (56.63%) sleep disturbed. Patricia N. Prinz et al. also conducted study on geriatrics to find sleep disorders due to ageing.

Table-14 shows the co-morbidity pattern of geriatrics. This showed that out of 482 elderly, 183 (37.96%) have only one co-morbidity, 97 (20.12%) have two co-morbidity, 17 (35.26%) have three co-morbidity and 2 (0.41%) have above three co-morbidity. Kamlesh Joshi et al. also conducted the same study, which shows that 4-6 co-morbidity is more on geriatrics.

Table 15 shows that 45.43% elderly were hospitalized within one year. Krishnamachari Srinivasan et al. study showed that 13% were hospitalized within one year.

CONCLUSION

The study was conducted to assess the health problems, mental status, functional status of 65 and above aged people. The result showed that the maximum number of geriatrics (40.87%) belonged to the age group of 65-69 years, health problems were more common in males (56.22%) than female (43.77%). Out of 482 elderly persons, were suffering from vision impairment 183 (37.96%), physical impairment and 113 (23.44%) hearing impairment. The prevalence of age related common problems among the elderly were found to be COPD (25.31%), DM (18.25%), HT (16.39%), CAD (10.99%). Sleep was disturbed in 273 (56.63%), 119 (24.68%) have depression, and 74 (15.35%) have memory impairment.

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