Original Research Article

Morbidity Pattern among Geriatric Population in a Rural Field Practice Area of a Tertiary Medical College & Hospital in Trivandrum District, Kerala, South India- A Community based Cross Sectional Study

Dr Nithish Immanuel R[1*],Dr Amritesh Kumar[2],Dr Nidhin Mohandas[3],Dr Neethu DS[4]

[1*]Postgraduate Resident, Department of Community Medicine, Dhanalakshmi Srinivasan Medical College & Hospital, Perambalur

[2]Associate Professor, Department of Community Medicine, Venkatesh Institute of Medical Sciences, UP

[3]Medical Officer, Avitis Institute of Medical Sciences, Palakkad

[4]Postgraduate Resident, Department of Biochemistry, MGM Medical College, Indore

[*]**Corresponding Author:** Nithish Immanuel R
[*]Postgraduate Resident, Department of Community Medicine, Dhanalakshmi Srinivasan Medical College & Hospital, Perambalur

Abstract
Introduction: Ageing is a universal process regarded as normal biological phenomenon [1]. Morbidity refers to departure from a state of physical or psychological wellbeing resulting from disease, illness, injury or sickness, especially where the affected individual is aware of his or her condition.
Objective: To assess the morbidity pattern among elderly population (aged equal to/ above 60 years) in a rural field practice area of Dr SMCSI medical college and hospital from July to August 2019
Study design: Community based Cross-sectional Study
Sample Size: 101
Study Population: Geriatric age group (≥ 60 years)
Study area: Field practice area around Dr SMCSI MCH, Karakonam.
Assessment: Semi structured questionnaire by face-to-face interview

Results: Majority (97%) of the respondents had chronic morbidities. 79% have visual impairment and 60% of them have hypertension. Among the respondents having 2 co morbidities vision impairment and dental problems are the commonest and among 3 comorbidities Hypertension, Type 2 Diabetes Mellitus, vision impairment are the commonest, among 4 co morbidities Hypertension, Type 2 Diabetes Mellitus, Dyslipidemia, vision impairment are the commonest and among 5 co morbidities, Hypertension, Type 2 Diabetes Mellitus, Dyslipidemia, visual impairment, cataract are common.

Conclusion: This study shows in short that majority (97%) of the respondents had one comorbidity or the other. Visual impairment (79%) was the most common followed by Systemic hypertension (59.4%). Lack of regular hospital visits and financial assistance were the major contributors.

Keywords: Geriatrics, comorbidities, lack of healthcare, low socio-economic status.

Introduction:

In the words of Seneca "Old age is an incurable disease". But Sir James Sterling Rose commented "You do not heal old age, you protect it, promote it, and extend it".[2] National policy on older people 1999 adopted by government of India defines senior citizens or elderly as people who are of age 60 years or above.[3]

Morbidity refers to departure from a state of physical or psychological wellbeing resulting from disease, illness, injury or sickness, especially where the affected individual is aware of his or her condition. According to WHO morbidity could be measured in terms of number of persons who were ill, illness the person experienced and the duration of illness.[4]

United Nations defines a country as ageing where proportion of old people reaches over 7%. According to population census 2011 there are nearly 104 million elderly people in India, (53 million females and 51 million males). From 5.6 % in 1961, the proportion has increased to 7.5% in 2001 and later to 8.6% in 2011 and by 2050 the geriatric population is assumed to reach 20%.[3]. In Kerala prevalence has increased from 5.1% in 1961 to 10.5% in 2001 and up to 13% in 2011.[1]

Population ageing generates many challenges and sparks concerns about the pace of future economic growth, the operation and the financial integrity of health care and pension systems.[5] Industrialisation, urbanisation, education, and exposure to western lifestyle are bringing changes in values and lifestyle. Much higher cost of bringing up and educating children along with pressure for gratification of desire affect transfer of income for care of parents [2]. Besides elderly are generally perceived to be more reluctant to seek health care for ailments [5]

However, the concern for aging of population is relatively new phenomenon which has raised due to significantly large increase in the number and proportion of aged persons in the society. So, the phenomenon of population aging is becoming a major concern for the policy makers all over the world over the last 2 decades.[6]

Elderly people are vulnerable to long term non communicable diseases (NCD) such as Cardiovascular illness, Cerebrovascular accidents, Cancers, Diabetes mellitus, Musculoskeletal and mental illnesses. Communicable diseases (CD) such as bacterial pneumonia, elderly influenza, skin infection, gastrointestinal infection, urinary tract infection etc. These diseases have complex symptoms due to declining body functions in them.[2]

This is further compounded by impairment of special sensory functions like vision and hearing and psychosocial problems like loneliness, feeling of neglect, ignorance or exploitation.[2] This study focuses on such problems of elderly which shall provide vital information in setting priorities in health services among the rural elderly population of Trivandrum District, Kerala.

Objectives

1.To assess the morbidity pattern among elderly population (≥ 60) in a rural field practice area of Dr SMCSI Medical College and Hospital.

2.To find out the various associated factors of morbidity among elderly population.

Methodology

Study design: Community based Cross-sectional Study

Sample Size: 101

Study Population: Geriatric age group (≥ 60 years)

Study area: Field practice area around Dr SMCSI MCH, Karakonam.

Inclusion criteria: permanent resident (A person who has been residing in a particular place for more than 6 months).

Exclusion criteria: persons aged above 60 years who are bedridden, having dementia, having severe mental disability that made it too difficult to communicate or respond, speech and hearing defects.

Procedure

Sampling method: non probability convenient method

Data collection Tool: pretested semi structured questionnaire

Data collection method: face to face interview
Data analysis: After entering data into to Microsoft excel sheet, was analysed using appropriate statistical software. Quantitative variable was expressed as mean and standard deviation. Qualitative variable was expressed as frequency and percentage.
To find out the associated factors of morbidity among elderly population was analysed using chi square test P 40.05. Considered as statistically significant.

Results

- More than half (67%) of the respondents are in the age group 60-69 years
- Half (of the respondents 55.4%) are males
- Almost half (44.6%) of respondents have secondary or higher secondary levels of education
- Most (90%) of the respondents are married
- Among the respondents 6.9% are living alone
- More than quarter (30.7%) of respondents are working at present. 6.9% of respondents are semiskilled workers and 1% of the respondents are skilled workers
- Half (49.5%) of the respondents belong to 3 generation families and 5.9% are living alone
- Among the respondents 5% belong to most economically backward sector of society and 39% of respondents are of below poverty level
- Only 5% of respondents have geriatric friendly toilets
- source of entertainment of 20% of the respondents' is TV and for another 20% it is news
- Among the respondents 3% lack social interaction
- One-fourth (26%) respondents' social interaction is with their children
- Half (50%) of the respondents spend their leisure time during tea time
- One-fourth of the respondents have 6 hours of sleep.5% of the respondents have minimum (2 hrs) and 2% have maximum (10) hours of continuous sleep
- More than one fourth (39.6%) of the respondents are not receiving pension
- More than quarter (32.7%) of respondents are receiving oldage pension
- One-third (33.7%) of the respondents are not happy with their lives
- One fourth (29.7%) of respondents have the opinion that their health is not good.6.9% of respondents are of the opinion that they have bad health
- Among the 10.9% respondents are current smokers,13.9% of them are past smokers
- Among the respondents 4% are tobacco chewers
- About quarter (21.8%) of respondents have consumed alcohol
- Half (54.5%) of respondents are current alcohol consumers
- Quarter (25.7%) of respondents are sick at the day of visit
- Among those having acute illness 5.9% of the respondents have headache and 5% of them have musculoskeletal pain
- Majority(97%) of the respondents have chronic morbidities. 79% have visual impairment and 60% of them have hypertension
- Among respondents having 2 co morbidities vision impairment and dental problems are the commonest and among 3 co morbidities HTN,T2DM,vision impairment are the commonest, among 4 co morbidities HD,T2DM,DLP,vision impairment are the commonest and among 5 co morbidities HTN,T2DM,DLP,visual impairment, cataract are the common
- Among the respondents 18.8% have 3 morbidities and 18.8% have 4 morbidities,3% of them have least number of morbidities (2) and 2% of them have highest number of morbidities (10)
- More than half (63.4%) of respondents visit the hospital only once in six months
- Among the respondents 1% were admitted to the hospital 8 times and 6% of them were admitted 6 times in the past 6 months
- Among the respondents 19.9% travel 11-45km for health care and 40.6% of them travel 1 km
- Transport to the health facility in 29.7% of the respondents is by walking and in 70.3% is by vehicle

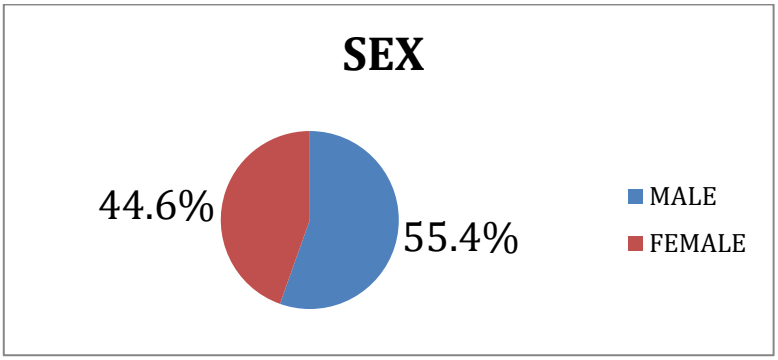
- Half (44.6%) of the respondents seek health care from public health facility.
- About half(45.5%)of respondents spend more than Rs 500 on drugs per month
- Health visitors have not visited the houses of 25.7% respondents

TABLE NO.1 AGE OF RESPONDENTS

Age(years)	Frequency	Percent
60-69	68	67.3
70-79	22	21.8
80-89	9	8.9
>90	2	2.0
Total	101	100.0

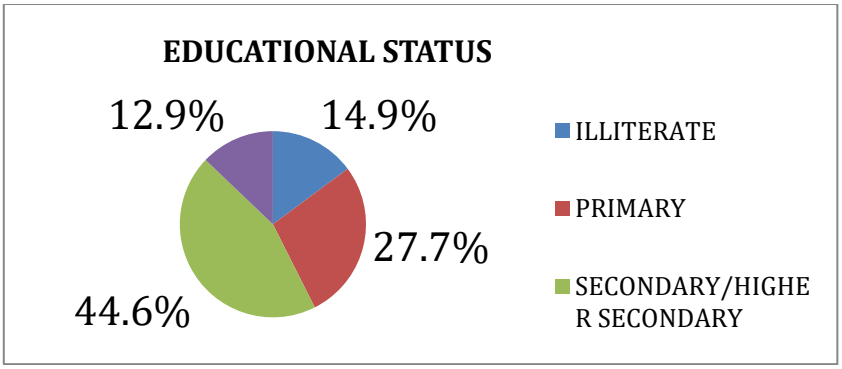
INFERENCE: 67% of the respondents are in the age group 60-69 years

FIGURE NO: 1 PIE DISTRIBUTION OF SEX



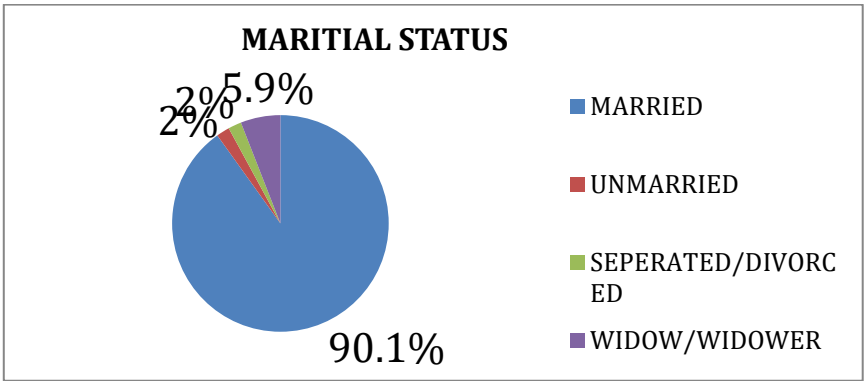
INFERENCE: Half (55.4%) of the respondents are males

FIGURE NO: 2 PIE DISTRIBUTION OF EDUCATIONAL STATUS



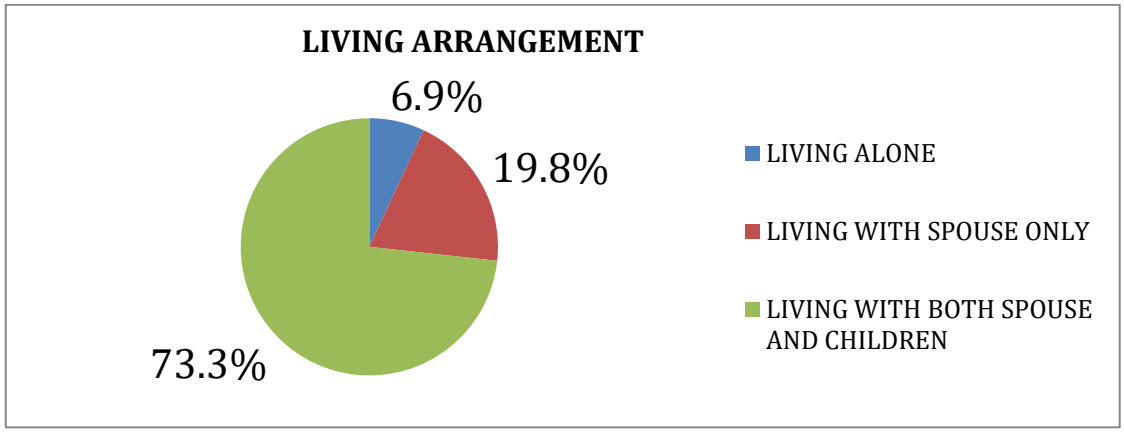
INFERENCE: 44.6% of respondents have secondary or higher secondary levels of education

FIGURE NO: 3 PIE DISTRIBUTION OF MARITAL STATUS



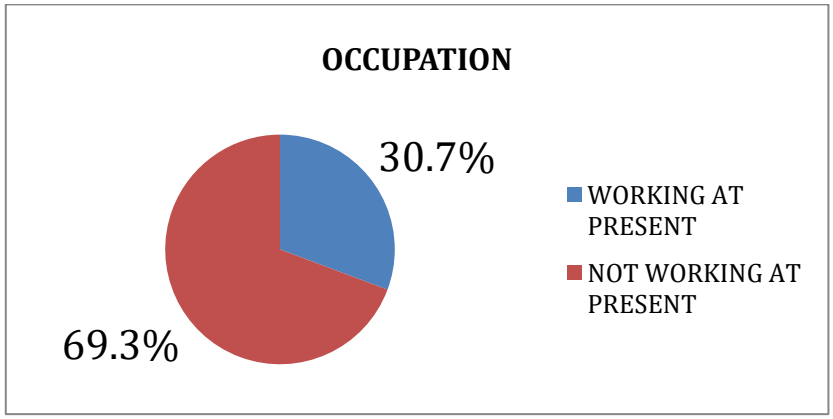
INFERENCE: 90% of the respondents are married

FIGURE NO: 4 PIE DISTRIBUTION OF LIVING ARRANGEMENT



INFERENCE: 6.9% of the respondents are living alone

FIGURE NO: 5 PIE DISTRIBUTION OF OCCUPATION



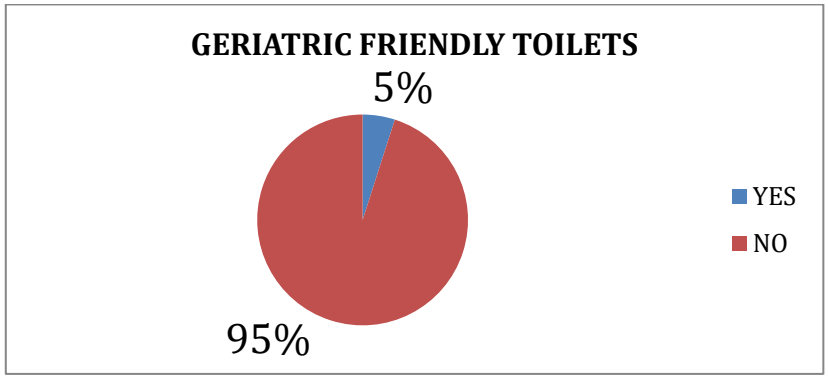
INFERENCE: 30.7% of respondents are working at present

TABLE NO: 2 TYPE OF RATION CARD OF RESPONDENTS

Category	Frequency	Percent
MOST ECNOMICALLY BACKWARD	5	5.0
BELOW PROVERTY LEVEL	40	39.6
ABOVE POVERTY LEVEL	32	31.7
NON PRIORITY	24	23.8
Total	101	100.0

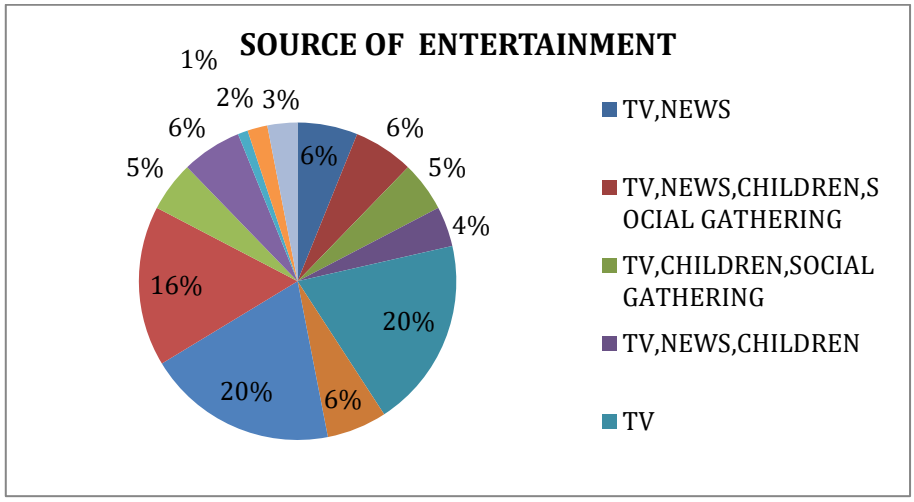
INFERENCE: 5% of respondents are of most economically backward sector of society and 39% of respondents are of below poverty level

FIGURE NO: 6 PIE DISTRIBUTION OF GERIATRIC FRIENDLY TOILETS



INFERENCE : Only 5% of respondents have geriatric friendly toilets

FIGURE NO: 7 PIE DISTRIBUTION OF SOURCE OF ENTERTAINMENT



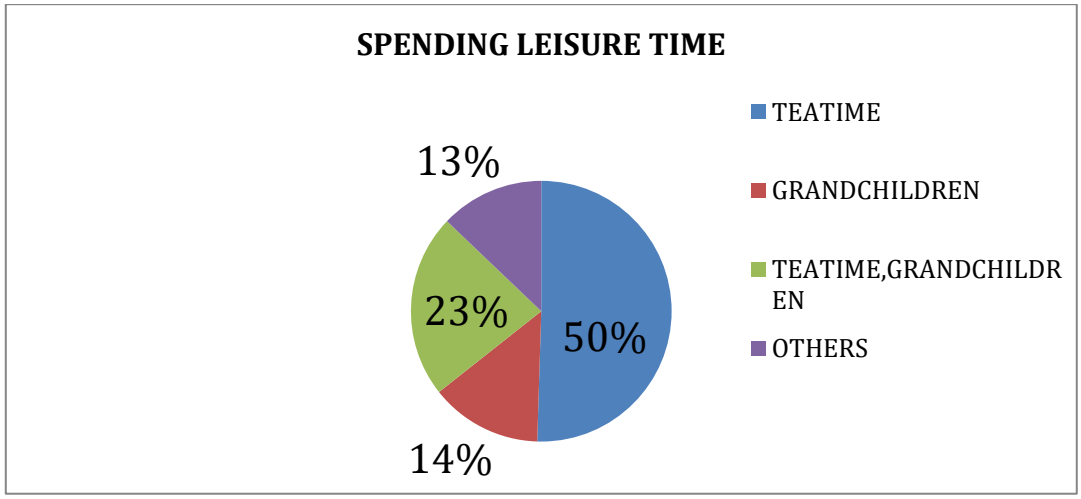
INFERENCE: 20% of the respondents' source of entertainment is TV and for another 20% it is news

TABLE NO 3: SOCIAL INTERACTION OF RESPONDENTS

Category	Frequency	Percent
CHILDREN,NEIGHBOUR,RELATIVES	18	16%
NEIGHBOUR, RELATIVES	19	17%
CHILDREN, NEIGHBOUR	24	22%
CHILDREN	28	26%
RELATIVES	5	5%
NEIGHBOUR	15	14%

INFERENCE: One-fourth (26%) respondents' social interaction is with their children

FIGURE NO: 8 PIE DISTRIBUTION ON SPENDING THEIR LEISURE TIME



INFERENCE: Half (50%) of the respondents spend their leisure time during tea time

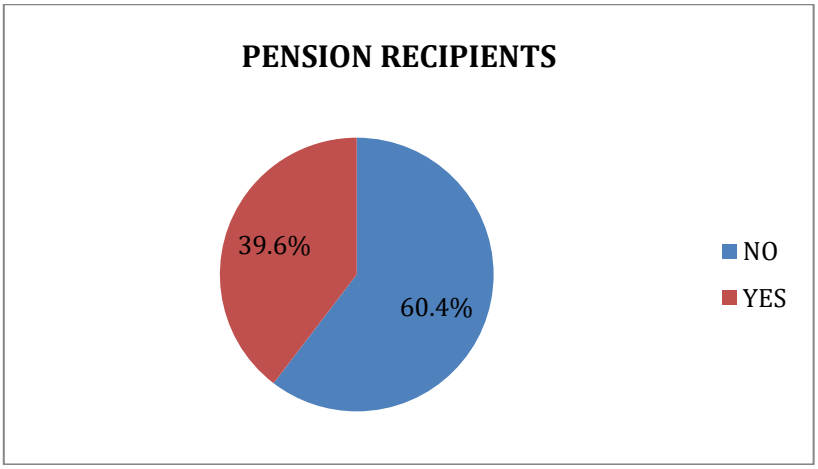
TABLE NO: 4- HOURS OF CONTINUOUS SLEEP AT NIGHT IN RESPONDENTS

Hours of sleep	Frequency	Percent
2	5	5.0
3	20	19.8
4	16	15.8
5	19	18.8
6	27	26.7

7	4	4.0
8	6	5.9
9	2	2.0
10	2	2.0
Total	101	100.0

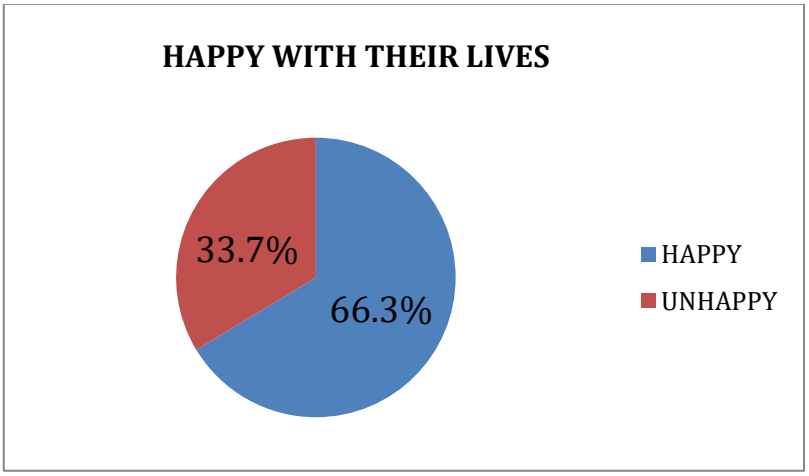
INFERENCE: One-fourth of the respondents have 6 hours of sleep.5% of the respondents have minimum (2 hrs) and 2% have maximum (10) hours of continuous sleep

FIGURE NO: 9 PIE DISTRIBUTION OF PENSION RECIPIENTS



INFERENCE: 39.6% of the respondents are not receiving pension

FIGURE NO: 10 PIE DISTRIBUTION ON WHETHER HAPPY WITH THEIR LIVES



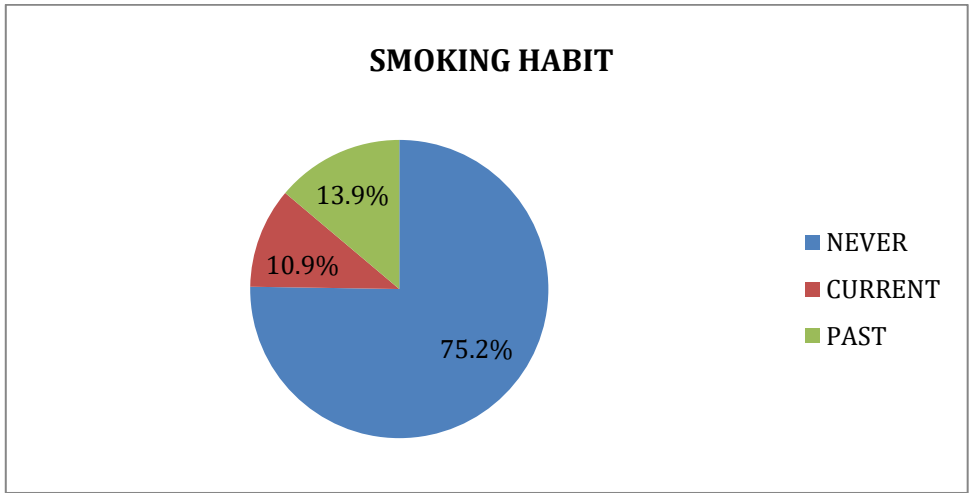
INFERENCE: One-third (33.7%) of the respondents are not happy with their lives

TABLE NO: 5 RESPONDENTS OPINION OF THEIR HEALTH

Category	Frequency	Percent
VERY GOOD	5	5.0
GOOD	59	58.4
NOT GOOD	30	29.7
BAD	7	6.9
Total	101	100.0

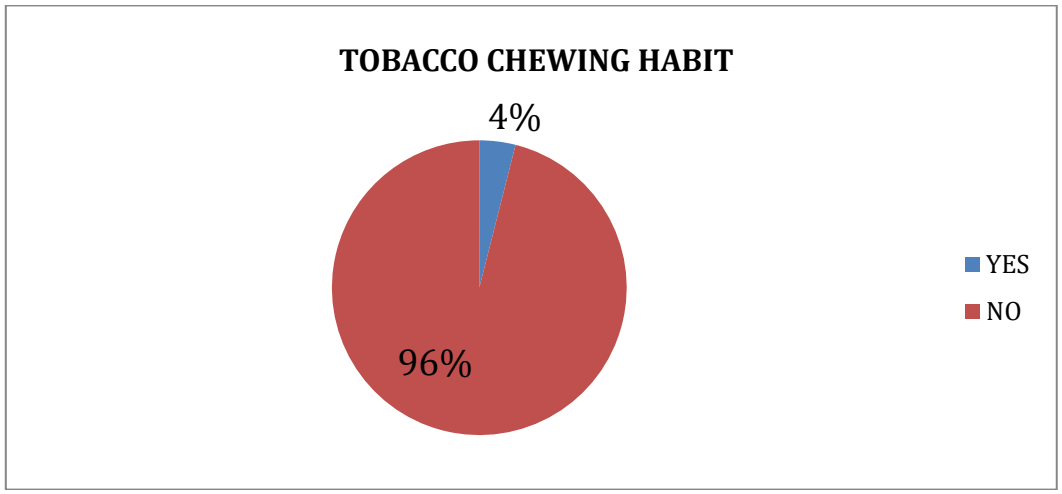
INFERENCE**:** 29.7% of respondents have the opinion that their health is not good.6.9% of respondents are of the opinion that they have bad health

FIGURE NO:11 PIE DISTRIBUTION OF SMOKING HABIT



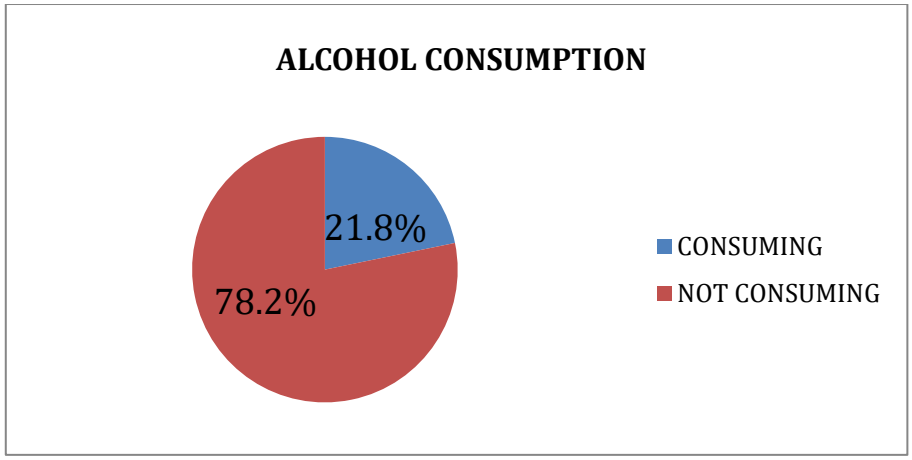
INFERENCE: 10.9% of respondents are current smokers.13.9% of them are past smokers

FIGURE NO: 12 PIE DISTRIBUTION OF TOBACCO CHEWING HABIT



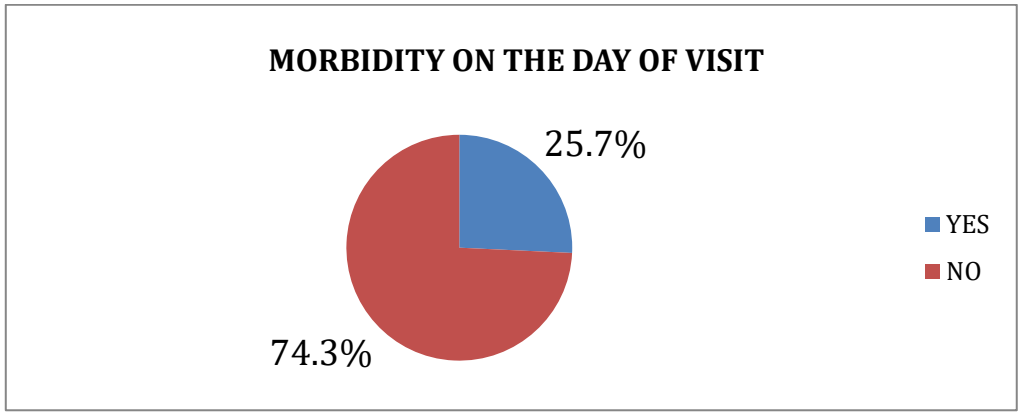
INFERENCE: 4% of respondents are tobacco chewers

FIGURE NO: 13 PIE DISTRIBUTION ON ALCOHOL CONSUMPTION



INFERENCE: 21.8% of have consume alcohol

FIGURE NO: 14 PIE DISTRIBUTION OF MORBIDITY ON DAY OF VISIT



INFERENCE: 25.7% of respondents are sick at the day of visit

TABLE NO:6 TYPE OF MORBIDITY ON THE DAY OF VISIT

Category	Frequency	Percent
NO MORBIDITY	75	74.3
FEVER	3	3.0
ADD	0	0
ARI	3	3.0
MUSCULOSKELETAL PAIN	5	5.0
HEADACHE	6	5.9
OTHERS	6	5.9
HEADACHE AND OTHERS	3	3.0
Total	101	100.0

INFERENCE: Among those having acute illness 5.9% of the respondents have headache and 5% of them have musculoskeletal pain

TABLE NO: 7 CHRONIC MORBIDIES IN RESPONDENTS

MORBITIES	YES	NO
HYPERTENSION	60	41
HEART DISEASE	16	85
T2DM	34	67
DISLIPEDEMIA	36	65
HEARING IMPAIREMENT	15	86
VISUAL IMPAIREMENT	79	22
CATARACT	24	77
URINARY PROBLEMS	15	86
SKIN DISEASE	3	98
CHRONIC GASTRITIS	27	74
PSYCHIATRIC PROBLEMS	3	98
ASTHMA	19	82
COPD	8	93
ARTHRITIS	42	59
DENTAL PROBLEMS	41	60
OTHERS	12	89
LONELINESS	10	91
FEELING NEGLECTED/ALONE	5	96
EXPLOITATION	1	100

INFERENCE: Majority (97%) of the respondents have chronic morbidities.
79% have visual impairment and 60% of them have hypertension

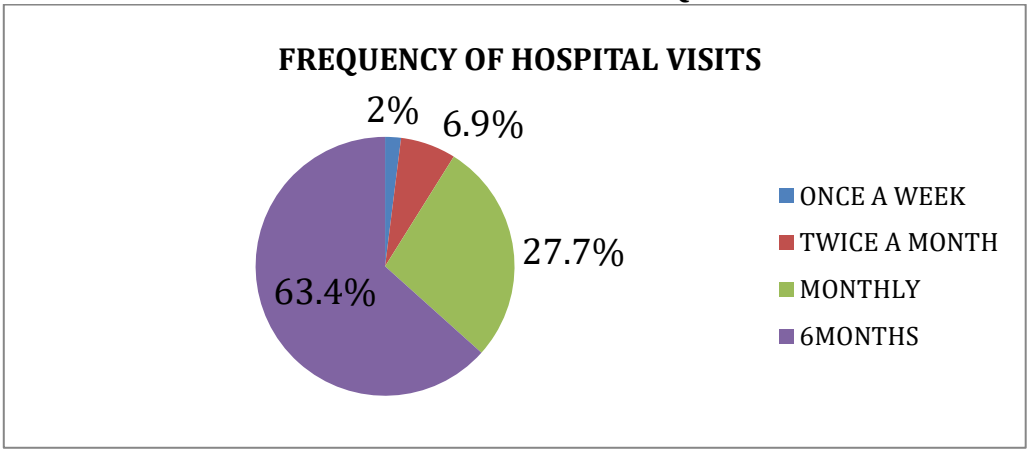
TABLE NO: 8 COMMONEST COMORBIDITIES IN RESPONDENTS

Catagory	Frequency	Percent
VISION IMPAIREMENT, DENTAL PROBLEMS	3	28
HTN, T2DM, VISION IMPAIREMENT	3	27
HD, T2DM, DLP, VISION IMPAIREMENT	3	27
HTN, T2DM, DLP, VISION IMPAIREMENT, CATARACT	2	18

HTN-HYPERTENSION, DLP-DISLIPIDEMIA, HD-HEARTDISEASE

INFERENCE: Among respondents having 2 co morbidities vision impairment and dental problems are the commonest and among 3 co morbidities HTN,T2DM,vision impairment are the commonest, among 4 co morbidities HD,T2DM,DLP,vision impairment are the commonest and among 5 co morbidities HTN,T2DM,DLP,visual impairment, cataract are the common

FIGURE NO: 15 PIE DISTRIBUTION OF FREQUENCY OF HOSPITAL VISITS



INFERENCE: 63.4% of respondents visit the hospital only once in six months

TABLE NO: 9 DRUG EXPENDITURE PER MONTH

Expenditure(Rs)	Frequency	Percent
0-499	55	54.5
>500	46	45.5
Total	101	100.0

INFERENCE: 45.5% of respondents spend more than Rs 500 on drugs per month

TABLE NO: 10 VISITS FROM HEALTH WORKER IN THE PAST MONTH

Category	Frequency	Percent
YES	75	74.3
NO	26	25.7
Total	101	100.0

INFERENCE: Health visitors have not visited the houses of 25.7% respondents

ASSOCIATIONS

AGE(IN YEARS)	HEARING IMPAIRMENT						χ^2	df	P
	YES		NO		TOTAL				
	no	%	no	%	no	%	19.679	3	0.001
60-69	6	40%	62	72.1%	68	67.7%			
70-79	3	20%	19	22.1%	22	21.8%			
80-89	4	26.7%	5	5.8%	9	8.9%			
>90	2	13.3%	0	0	2	2%			

There are statistically significant differences between age and hearing impairment (i.e. P<0.0

SEX	URINARY PROBLEMS						χ^2	df	P
	YES(n=15)		NO(n=86)		TOTAL				
	no	%	no	%	no	%			
MALE	12	80%	44	51.2%	56	55.4%	4.299	1	0.049
FEMALE	3	20%	42	48.8%	45	44.6%			

There is statistically significant differences between sex and urinary problems (i.e.P<0.05)

SMOKING	URINARY PROBLEMS						χ^2	df	**P**
	YES(n=15)		NO(n=86)		TOTAL				
	no	%	no	%	no	%			
NEVER	7	46.7%	69	80.2%	76	75.2%			
CURRENT	2	13.3%	9	10.5%	11	10.9%	10.692	2	0.004
PAST	6	40%	8	9.3%	14	13.9%			

There is statistically significant differences between smoking and urinary problems (i.e. P<0.05)

AGE(in years)	CHRONIC GASTRITIS						χ^2	df	P
	YES(n=27)		NO(n=74)		TOTAL				
	No	%	no	%	no	%			
60-69	14	51.9%	44	73%	68	67.3%			
70-79	5	18.5%	17	23%	22	21.8%	14.017	3	0.003
80-89	7	25.9%	2	2.7%	9	8.9%			
>90	1	3.7%	1	1.4%	2	2%			

There is statistically significant differences between age and chronic gastritis (i.e. P<0.05)

SMOKING	CHRONIC GASTRITIS						χ^2	df	P
	YES(n=27)		NO(n=74)		TOTAL				
	no	%	no	%	no	%			
NEVER	25	92.6%	51	68.9%	76	75.2%			
CURRENT	1	3.7%	10	13.5%	11	10.9%	5.964	2	0.049
PAST	1	3.75	13	17.6%	14	13.9%			

There is statistically significant differences between smoking and chronic gastritis (i.e. P<0.05)

FAMILY TYPE	PSYCHOSOCIAL PROBLEMS						χ^2	df	P
	YES(n=3)		NO(n=98)		TOTAL				
	no	%	no	%	no	%			
NUCLEAR	1	33.3%	14	40.8%	41	40.6%			
JOINT	2	66.7%	8	8.25	10	9.9%	11.633	2	0.012
3 GENE-RATION	0	0	50	51%	50	49.5%			

There is statistically significant differences between family type and psychosocial problems (i.e. P<0.05)

SMOKING	COPD						χ^2	df	P
	YES(n=8)		NO(n=93)		TOTAL				
	no	%	no	%	no	%			
NEVER	3	37.5%	73	78.5%	76	75.2%			
CURRENT	3	37.5%	8	8.6%	11	10.95	8.071	2	0.016
PAST	2	25%	12	12.9%	14	13.95			

There is statistically significant differences between smoking and COPD (i.e. P<0.05)

AGE(in years)	OSTEOARTHRITIS						χ^2	df	P
	YES(n=42)		NO(n=59)		TOTAL				
	no	%	no	%	no	%			
60-69	29	69%	39	66.1%	68	67.3%	12.655	3	0.003
70-79	4	9.5%	18	30.5%	22	21.8%			
80-89	7	16.7%	2	3.4%	9	8.9%			
>90	2	4.8%	0	0%	2	2%			

There is statistically significant differences between age and osteoarthritis (i.e. P<0.05)

SMOKING	DENTAL PROBLEMS						χ^2	df	P
	YES(n=41)		NO(n=60)		TOTAL				
	no	%	no	%	no	%			
NEVER	38	92.7%	38	63.3%	76	75.2%	11.576	2	0.002
CURRENT	2	4.9%	9	15%	11	10.9%			
PAST	1	2.4%	13	21.7%	14	13.9%			

There are statistically significant differences between smoking and dental problems (i.e. P<0.05)

Discussion

- In our study "Morbidity pattern among Geriatric Population" out of 101 respondents 67.3% were within 60-69 years. In a study done in Karnataka by Shraddha and Prakash et al 70% of respondents were 70-79 years of age.
- In our study, out of 101 respondents, 55.4% were males and 44.6% were females. While in a study by Zankhana Parmar et al out of 200 respondents 60% were males and 40% were females.
- In this study only 14.9% were illiterate and 85.1% were literate whereas in the study conducted by Shraddha and Prakash, et al 28.5% were illiterate and 71.5% were literate among 207 respondents.
- In this study 90.1% were married, 2.0% were unmarried,2.0% were divorced or separated and 5.9% were widows. In another study done by Shraddha and Prakash, et al all of the 207 respondents were unmarried.
- In our study 73.3% were living with their spouse and children,79.8% were living with only their spouse and 6.9% were living alone. In a study done by Dutta et al in Raipur, out of 300, 60% were living with both their spouse and children, 36% with only their spouse and 5% were living alone.
- In our study 30.7% were working currently and 69.3% are not. In a study by Rahul, Singh et al done in Karnataka,25.5% were working and 74.5% weren't among 254 respondents.
- In our study 69.3% were doing unskilled work, 22.8% semiskilled, 7.4% skilled work. Where as in another study by Rakesh et al in Sikkim,78.9% were doing unskilled work,11.1% semiskilled,10% skilled work.
- In our study 30.6% were having nuclear Family,9.9% were joint family and 49.5% were 3 generation family. Study by Sharma et al in Kolkata shows, 52.5% were nuclear family,14.5% joint family and 33.3% 3 generation family
- In our study, 46.8% were APL type ration card holders and 53.2% were BPL card holders whereas in another study by Ramesh et al in Chennai showed that 68.4% were APL card holders and 31.6% were BPL card holders.
- In our study only 5% of the 101 respondents had geriatric friendly toilets. In a study by Rakesh et al done in Karnataka 68% have geriatric friendly toilet.
- In our study 60.4% were pensioners and the remaining 39.6% didn't receive any form of pension/assistance, although 17.8% were receiving post retirement pension, 32.7% old age pension and remaining 9.9% widows Pension. Study by Soumya et al in Mumbai showed that 50.2% of respondents were pensioners and the remaining were not. Out of which 90% were receiving old age pension, 4.5% receiving post retirement pension and 5.5% widows pension respectively.

- In our study 40% were only getting adequate 6 hours of continuous sleep while 60% had inadequate or disturbed sleep. Study conducted by Rakesh et al in Karnataka showed 30% were getting adequate continuous sleep and remaining inadequate.
- In our study 66.3% were happy with their perception of life and 33.7% were not. Rakesh et al study shows majority 76.7% were happy in their life.
- In our study 75.2% were smokers while 24.8% were not smokers. In a study conducted in Karnataka by Rakesh et al 45.2% were smokers and 54.8% were not.
- Our study showed that 4% of respondents chewed tobacco while the remaining respondents did not. In another study conducted in Udaipur by Zankhana Parwar et al only 20% of the respondents chewed tobacco.
- Our study also showed that 21.8% consumed alcohol and 78.2% didn't whereas in a study by Zankhana et al done in Udaipur reported 44.5% consumed alcohol.
- In our study the commonest illness found in the respondents was visual Impairment (79%) followed by systemic Hypertension (59.4%) whereas the study conducted by Dutta et al in Raipur showed that Cardiovascular disease was the commonest illness followed by Dyslipidemia.
- In our study,37.8% of the respondents had Systemic hypertension, Dyslipidemia, Type 2 diabetes mellitus and vision impairment as the most prevalent co-morbidities whereas in a study by Lena et al in Karnataka, most of the respondents had hypertension, osteoarthritis, diabetes, and bronchial asthma were the most prevalent.[11]
- In our study most of the respondents suffered from3-4 illnesses, while in a study done by Dutta et al in Raipur showed that most people in their study population suffered from 4-5 illnesses.
- In our study more than a quarter (27.7%) of respondents visited the doctor every month while in a study done by Sharma et al in Rajasthan showed that only 11.8% visited the doctor monthly .It may be due to increased awareness and concern about health in our study population.
- In our study 61.5% travel less than 5km to visit a health facility whereas the study conducted by Sharma et al in Rajasthan showed that 56.8% of respondents travelled more than 10km to a health facility. It may be due to the presence of a health facility nearby.
- Our study showed that 55.4% visited a private health centre and the remaining 44.6% visited a public health centre. A study conducted by Sharma et al in Rajasthan showed that 78.8% visited public health centres. It may be due to short queuing time in private health care facility compare to long queue in public hospitals.
- In our study 54.5% spend around INR 499 s on drugs and treatment while the remaining 45.5% spends more than 500 rupees. The study conducted by Sharma et al in Rajashtan showed that 78.7% spends less that 500 rupees per month for drugs and treatment. It could be because people use less generic drugs.
- Our study revealed that74.3% get a monthly visit by an ASHA worker, Anganwadi worker, JHI or JPHN. Whereas a study conducted by Lokesh et al in Karnataka showed that only 68.6% get a monthly visit form ASHA worker, Anganwadi worker, JHI or JPHN. High frequency of visit is due to more awareness for health.

Conclusion

- In our study, 97% of the respondents had some form of chronic morbidity.
- On the day of visit, 25.7% were acutely ill.
- Around 39.6%, belong to BPL category and 5% were most economically backward.
- Only 5% of the respondents have geriatric friendly toilet.
- Only one- fourth of respondents had 6 hours of continuous sleep.
- Almost one –third were unhappy with their life and almost 36.6% of the respondents were not happy with their life.
- Visual impairment (79%) was the most common morbidity followed by systemic hypertension (59.4%).

Limitations

- This study was conducted in kunathukal panchayath among 101 respondents only, so the result obtained cannot be generalised.
- Since it was a cross sectional study, follow up could not be performed

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