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Original Research Article

Assessment of healthcare needs of elderly population in a rural area of north Kerala- a community based cross sectional study

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ABSTRACT

Background: Ageing is a natural process which brings along a number of changes in physical, psychological, hormonal as well as social conditions of an individual. To address ever growing needs of geriatric population, the first step is to identify and assess those needs. Objective of the study was to assess psychological, social and physical healthcare needs of elderly population and to determine the factors associated with it.
Methods: A cross-sectional study was conducted among 250 elderly Individuals 60 years and above residing in rural area of north Kerala. Wards were selected by simple random sampling and from wards study subjects were selected by consecutive sampling. Data was collected from the study subjects by direct interview.
Results: Mean age of the participant's was 69.3±7.6 years. Majority (79%) of the study participants were having comorbidities. Majority of the study participants had good physical (84%), psychological (57%) and social health (58%). Physical health, psychological health and social health was significantly associated with marital status and living arrangement and also with each other. Psychological and social health was also associated with gender. Unmet need for vision problems was 68.7% and for hearing problems it was 85.97%.
Conclusions: Majority of the study participants had good physical, psychological and social health. Physical, psychological and social health was found to be significantly associated with each other. Marital status and living arrangement were significantly associated with physical, psychological and social health. Psychological and social health was significantly associated with gender.

Keywords: Elderly, Healthcare needs, Psychological health, Physical health, Social health, Unmet needs

INTRODUCTION

Ageing is a natural process which brings along a number of changes in physical, psychological, hormonal as well as social conditions of an individual.[1] An older person is defined by the United Nations as a person over 60 years of age.[2] The declining trend in both fertility and mortality, along with increasing life expectancy has shifted the demographic structure to increasing population of elderly.[3] The proportion of the world's population over 60 years will nearly double from 12% to 22% between 2015 and 2050. In 2050, 80% of older people will be living in low- and middle-income countries.

Elderly people suffer from multiple physical, social psychological and economic problems with unmet needs in all domains of health.[4] Unmet health care need is defined as the presence of a setting in which a person who is in need of essential healthcare but he is not able to receive it.[5] Major problem of older people are chronic non communicable diseases and disabilities along with impairment of special sensation like vision and hearing which affect their activity of daily living and cause disability.[6]

Health also has a social context. Social engagement keeps the elderly active and connected with society which will

enhance their wellbeing. No matter our age, we all have social needs whether it's the need to be loved, to be accepted by our peers, or to belong to a community. satisfying these social needs can improve quality of life since social and psychological health have impact on physical health.[7,8]

In Kerala, the living arrangement of elderly has not been a serious issue in the earlier time. Urbanization has led to emergence of nuclear family and large-scale migration of adult population in search of employment both within and outside the country. This had serious implication on living arrangement as well as provision of care of elderly.[9]

To address ever growing needs of geriatric population, the first step is to identify and assess those needs. Assessment of health care needs of elderly is important to find the areas of unmet needs and predictors of unmet need for effective planning of support services.[10]

Objectives

To assess psychological, social and physical healthcare needs of elderly population in a rural area of north Kerala. To determine the factors associated with psychological, social and physical health care needs of elderly in a rural area in north Kerala. To assess the unmet needs in the health care of elderly population. To identify the factors associated with unmet needs.

METHODS

Design, setting and study population

A community based cross- sectional study was conducted among 250 elderly individuals 60 years and above residing in Cheruthazham Panchayath of Kannur district from 2021 June to 2023 July.

Exclusion criteria

Individuals with mental or critical illness, aphasic individuals and those who cannot comprehend the language were excluded

Sample size estimation and sampling method

Prevalence taken as 63.3% according to a study conducted by Kalusivalingam et al.[13] Using the formula Z^2pq/d^2 sample size obtained was 223 and was rounded off to 250. Simple random sampling was used to select the wards and consecutive sampling for selection of house from each ward.

Data collection and analysis

Data was collected by direct interview of the study participants using a semi structured questionnaire. Physical, psychological and social health was scored. In physical health maximum score was 26; score 21-26 was labelled as good physical health, 15-20 average and less than 15 poor physical health. In psychological and social health maximum score was 22. Score 19-22 good psychological/social health, score 14-18 average, less than 14 poor psychological health and social health respectively. Data was entered in MS Excel and analyzed using SPSS version 21.

Ethical approval obtained from Institutional ethical committee IEC. No. 147/2019/GMCK.

Operational definition

Elderly individual

Person male or female aged 60 years and above.[2]

Unmet need

Person who is in need of essential healthcare but he is not able to receive it.[5]

RESULTS

Demographic profile

Study was conducted among 250 elderly individuals 60 years of age and above. Age was ranging from 60 to 105 years with mean age 69.36±7.60 years. Most of them (40%) belonged to age category of 60-65 years. Among the 250 participants, 156 (62.4%) were females and 94 (37.6%) were males. Majority (87%) of the study participants belonged to Hindu religion. About 32% of the participants had primary and 28.4% had high school education and 8.4% of the participants were illiterate.

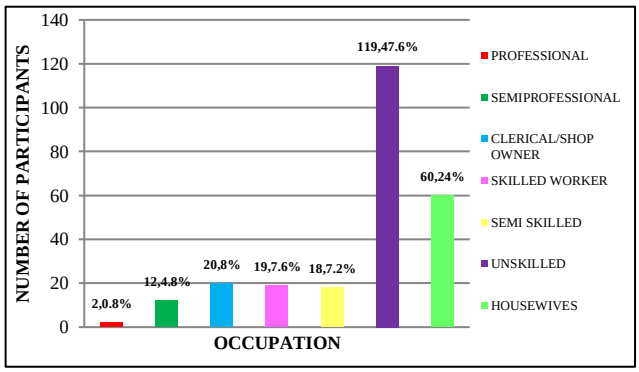

Figure 1: Occupational status of the study participants (n=250).

Majority of the study participants (57%) were married and 39% were widowed. Among the study participants 37.6% were living with spouse and children, 34% were living with their children and 5.6% were living alone.

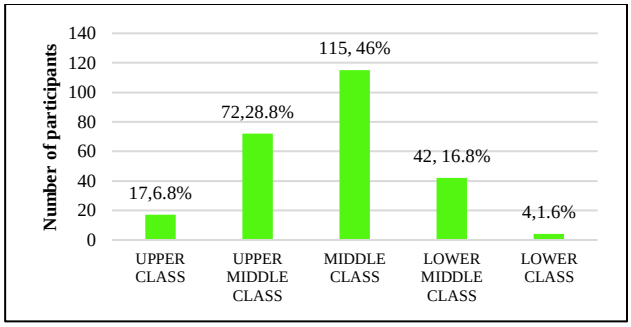

Figure 2: Socioeconomic status based on modified BG Prasad scale (n=250).

Co-morbidities

Majority of the study participants (79%) had some comorbidity. HTN (72.5%) was the most common chronic illness followed by diabetes (38.5%).

Physical health

Majority of the study participants were able to perform activities of daily living without help. For walking 13.2% required some help and 0.4% were unable to walk. For toileting 3.6% required some help and 0.4% were unable to by self. Among the instrumental activities of daily living mostly help is required for climbing stairs, 32% required some help and 5.6% were unable to climb stairs. Among the 34 individuals who were unable to do household chores 64.8% were females and 35.2% were males.

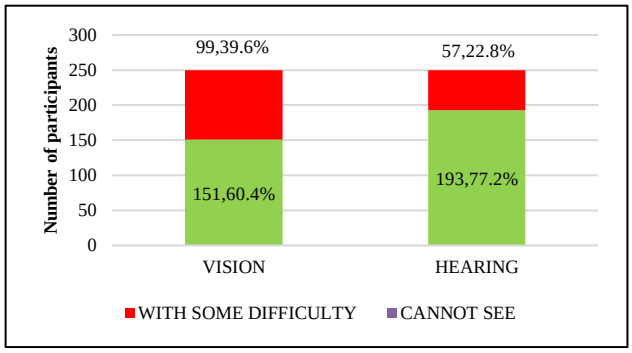

Figure 3: Vision and hearing* (n=250).

*With specks or hearing aid if using it.

Of the 250 participants, 11% had history of 1 episode of fall in the previous one year and 2% had history of 2 or more fall. Among the participants 17% gives history of occasional incontinence while 2% have history of frequent incontinence. Among those with incontinence 38 (82.6%) were females and 8 (17.4%) were males. Majority (69.6%) were not getting appropriate help for incontinence.

Table 1: Factors associated with physical health (n=250).

Factor	Category	Physical health good (%)	Physical health average (%)	Physical health poor (%)	P value
Gender	Male	83 (88.3)	8 (8.5)	3 (3.2)	0.393*
	Female	128 (82.1)	22 (14.1)	6 (3.8)	
Education	Above high school	27 (96.6)	1 (3.5)	0 (0)	0.256#
	High school and below	184 (82.8)	29 (13.06)	9 (4.14)	
Marital status	Married	130 (91.5)	9 (6.4)	3 (2.1)	0.012#
	Widowed	72 (73.5)	20 (20.4)	6 (6.1)	
	Separated	2 (100)	0 (0)	0 (0)	
	Never married	7 (87.5)	1 (12.5)	0 (0)	
Living arrangement	Alone	14 (100)	0 (0)	0 (0)	0.004#
	With spouse	42 (85.7)	5 (10.2)	2 (4.1)	
	With children	62 (72.9)	17 (20)	6 (7.1)	
	With relatives	5 (62.5)	3 (37.5)	0 (0)	
	Spouse and children	88 (93.6)	5 (5.3)	1 (1.1)	
SES	Upper class	15 (88.2)	1 (5.9)	1 (5.9)	0.216#
	Upper middle class	60 (83.3)	9 (12.5)	3 (4.2)	
	Middleclass	101 (87.8)	12 (10.5)	2 (1.7)	
	Lower middle	33 (78.6)	7 (16.6)	2 (4.8)	
	Lower	2 (50)	1 (25)	1 (25)	
Psychological health	Good	128 (90.1)	11 (7.7)	3 (2.2)	<.001#
	Average	75 (83.4)	14 (15.5)	1 (1.1)	
	Poor	8 (44.4)	5 (27.8)	5 (27.8)	
Social health	Good	139 (95.8)	6 (4.2)	0 (0)	<.001#
	Average	63 (73.3)	19 (22.1)	4 (4.6)	
	Poor	9 (47.4)	5 (26.3)	5 (26.3)	

#- Fischer exact * chi square.

Majority were not receiving appropriate investigation for vision (68.7%) and hearing (85.9%) problems. SES and unmet need for vision was significantly associated. Those in the lower class were having more unmet need for vision than those in the upper socio-economic classes.

Psychological health

Majority of the participants (73%) perceive their general-health as excellent. About 26.4% of the participants had uncontrollable worries several days in the past 2 weeks. Among the study participants 12.4% expressed that they had little interest in doing things and 6.4% had felt hopeless several days in the past 2 weeks. Of the 250 participants 29% had experienced sleep problems occasionally and 6% frequently. Among the 250 participants 5 of them give history of suicidal thoughts in the past. Of which 4 (80%) were females and 1 (20%) was male.

Significant association was found between gender and psychological health. Males were good psychological health compared to females. Marital status and living arrangement were also significantly associated. Widowed and never married have poor psychological health compared to married and those who live with spouse and children had better psychological health. Social health was also significantly associated with psychological health, those with good social health had good psychological health compared to those with poor social health.

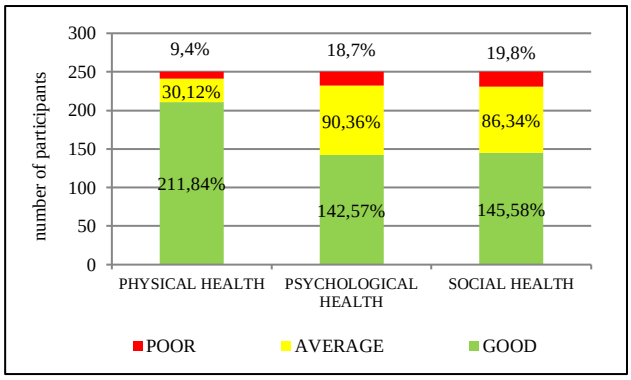

Figure 4: Health total score (n=250).

Social health

Among the study participants 48% were financially independent while 44% were partially dependent and 8% fully dependent on other family members for financial needs. Of the 141 study participants who are financially dependent on others 28% do not get adequate financial support to meet their needs. Of the 250 participants 4% have experienced some form of abuse from family members. Frequent abuse from son is faced by one (0.4%) of the study participants. Verbal abuse was the most common (90.9%) form of abuse. Among 250 participants 56% get emotional support from family members whenever needed while 6.8% never get any sort of emotional support from the family members.

Social health was significantly associated with gender. Males have a better social life compared to females. Marital status and living arrangement were also significantly associated. Married women have better social life compared to unmarried and widowed and those who live with spouse and children have a better life compared to those who lives alone or with relatives.

DISCUSSION

Study was conducted in 250 elderly individuals. In my study mean age of the study participants were 69.36±7.60 years. Among the 250 participants 62.4% were females and 37.6 % were males, this was in line with SRS reports 2020 which mentions that composition of 60+ aged female population is higher than males.[11] Majority (79%) of the study population have comorbidities. Hypertension was present in 72.5% of the study population followed by diabetes mellitus 38.5%. Prevalence of HTN was high compared to other studies where it ranged from 18.7 to 59.1%.[12-16]

In our study most the participants were able to perform activities of daily living without help. For walking 13.2% required some help and 0.4% were unable to walk. For toileting 3.6% required some help, for bathing 4.8% required some help and 0.8% were unable to bath and for dressing 2.4% required some help and 1.2% were unable to dress by themselves. It was similar to study by Andrews et al in Kerala except for walking in which only 5.3% required help which was high (13.2%) in our study.[17]

In IADL maximum inability was for climbing stairs (37.6%) followed by household chores (27%), walk in public places (22.4%) and cooking (20.8%). This was high compared to study by Anu Jacob et al were 89% were able to cook food, 88% were able to perform housekeeping tasks and 78% were able to go out independently.[18]

Vision problems were present in 39.6% of the study population and hearing problems in 22.8% of the study participants. In other studies vision problems were ranging from 68.69% to 93.9% and hearing problems from 14.9% to 56%.[15-17]

In our study majority (84%) have good physical health, 12% have average and 4% have poor physical health. Physical health was significantly associated with marital status, living arrangement, psychological health and social health. Widowed individuals were having poor physical health compared to married, as physical and psychological health of an individual are interlinked this could be a reason for poor physical health. None of them living alone or with relatives were having poor physical health. This could be due to the fact that those with poor

health will be dependent on others and can't live alone and relatives will not be interested in looking after physically dependent elderly so such individuals will be admitted in old age homes or other centres for elderly. Physical psychological and social health were also significantly associated. Those with good physical health were having good psychological and social health. Those with poor physical health were having poor psychological and social health.

In our study there was significant difference in median age in various physical health categories. Median age was low in the good physical health category compared to average and poor physical health category individuals.

In our study 57% were having good psychological health, 36% average and 7% poor psychological health. Gender, marital status, living arrangement and social health were significantly associated with psychological health. Males were having good psychological health compared to females. Married individuals were having better psychological health compared to widowed or separated individuals. Those who were living with spouse or with spouse and children were having better psychological health compare to those who are living alone or with children. Those individual with good social health had good psychological health compared to those with poor social health.

In our study there was significant difference in median age between categories of psychological health, median age increased as we move on from good psychological health to poor psychological health.

Among the study participants 58% had good social health, 34% had average and 8% had poor social health. Social health was significantly associated with gender, marital status and living arrangement. Males, married individuals and those who were living with spouse had better social health compared to females, widows and those who are living alone. There was also significant difference in median age between various categories of social health. Median age increases from good social health to poor social health category.

Self-reported morbidities were considered in the study, no screenings of the participants were done. Therefore, some morbidity might have been missed. Qualitative assessment is needed to explore the depth of the problem but couldn't be done due to time constraints.

CONCLUSION

Majority of the study participants had good physical, psychological and social health. Physical health was significantly associated with marital status and living arrangement. Physical health was also significantly associated with psychological and social health. Psychological health was significantly associated with gender, marital status, living arrangement and social health. Social health was significantly associated with gender, marital status and living arrangement.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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