Original Research Article

Morbidity pattern of elderly women of rural North Karnataka: a community based cross-sectional study

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ABSTRACT

Background: With the increasing life expectancy, the population around the world is growing old at a higher rate. Ensuring their quality of life and addressing their health care needs is a major challenge ahead. Elderly women are more vulnerable and there is a dearth for information regarding their health problems in India. Therefore, this study was undertaken focusing on the health problems of rural elderly women. The objective of the study was to assess the morbidity pattern of rural elderly women.

Methods: A community based cross-sectional study was conducted in the rural field practice area of Shri B M Patil Medical College, Vijayapura from November 2015 to February 2016. A house-to-house survey was done and 200 women aged ≥60 years were included in the study. They were interviewed using pretested and predesigned questionnaire after obtaining informed consent. Information regarding demographic profile, present or past illness, economic history and physical activity of daily living were collected. Analysis was done using SPSS v.16 and data was represented using proportions and percentages.

Results: Majority of the participants were illiterate (96.4%). Most (83.6%) of them were financially dependent. Most common chronic illness was arthritis (73.3%) and visual problem (58.8%).

Conclusions: Our study reveals majority of the elderly women are suffering from one or multiple chronic illnesses. As a matter of fact, there is an urgent need to develop better health care services for the elderly women residing in rural areas.

Keywords: Elderly women, Morbidity, Rural, Body mass index

INTRODUCTION

Ageing is a natural physiological process. Old age should be regarded as a normal and inevitable biological phenomenon. An estimated 605 million elderly are a part of the global population.[1] The age group for elderly cannot be defined with precision as it varies across communities. In India, a person aged ≥60 years is referred to as 'elderly'.[2] As the life expectancy is increasing, the ageing population is growing at a higher rate leading to a wide range of health problems in them.[3]

One of the vulnerable groups are elderly women and ensuring their quality of life and addressing their health care needs is a major challenge ahead.

The burden of illness in the elderly is mainly due to the prevalent chronic diseases along with the socio-epidemiological and nutritional transition that we are facing with. As a matter of fact, India is facing with a double burden of communicable and non-communicable diseases.[4,5] These diseases greatly influence their quality of life and functionality. The problems faced by them

may be due to the ageing process, those associated with long-term illnesses like degenerative diseases of the heart, cancer, diabetes, respiratory illnesses, genito-urinary conditions or psychological problems.[6-10]

A few hospital based studies have been conducted on the health status of the elderly in India. But, these give only a partial view of the spectrum of illnesses in them. There is a dearth for reliable information regarding the health problems of the elderly women in rural India. Therefore, this study was undertaken to assess the morbidity pattern among rural elderly women with a view to bring about changes in the health care services provided to them so as to attain positive health and to maintain functional independence.

Objectives

To assess morbidity pattern among rural elderly women.

METHODS

After taking ethical clearance from the Institutional Ethical Committee, a community based cross-sectional study was conducted in the rural field practice area of Shri B M Patil Medical College, Vijayapura from November 2015 to February 2016. A house-to-house survey was done and a pilot study was conducted on 25 women aged ≥60 years. It was found that 50% of the elderly were experiencing at least one health problem. The total sample size was estimated by using formula:

$$n = 4 * P * Q / l^2$$

Where n = is the sample size,

P = Prevalence of characteristic studied taken as 50%,

Q= (1-P),

L= Permissible margin of error in the estimated value which was taken as 8% at 95% confidence level.

Required sample size was calculated to be 160. Considering a nonresponse rate of 10%, 176 was the sample size. A total of 200 elderly women aged ≥60 years were chosen to be a part of the study. They were interviewed using pretested and predesigned questionnaire after obtaining informed consent. Information regarding demographic profile, present or past illness, psychosocial history, economic history and physical activity of daily living were collected. Also, height was measured using a measuring tape and weight was measured using a bathroom weighing scale and body mass index (BMI) was calculated.

Analysis was done using SPSS v.16 and data was represented using proportions and percentages.

Inclusion criteria

All women aged ≥ 60 years who are willing to participate in the study.

Exclusion criteria

Those not willing to participate in the study.

RESULTS

Of the 200 elderly women who were interviewed, 73.9% of them were Hindus and 26.1% of them were Muslims. Majority (96.4%) of them were illiterates (Table 1). 47.3% of them were widows. About 7.3% of them were found to be living alone. Most of them (83.6%) were unemployed. 13.3% of them were found to be using chewing tobacco.

**Table 1: Socio-demographic profile of the elderly women.**

Characteristics		Number	Frequency (%)
Religion	Hindu	148	73.9
	Muslim	52	26.1
Marital status	Married	103	51.5
	Widow	95	47.3
	Separated	2	1.2
Type of family	Living alone	15	7.3
	Nuclear	35	17.6
	Three generation	70	35.2
	Joint	80	40
Education	Illiterate	193	96.4
	Literate	7	3.6
Occupation	Employed	33	16.4
	Unemployed	167	83.6
SES	I	11	5.3
	II	18	8.8
	III	84	41.8
	IV	65	32.5
	V	21	10.5
Habits	Tobacco	27	13.3
	Smoking	0	0
	Alcohol	0	0
	No substance abuse	173	86.7

Majority of the elderly women (41.2%) were found to be undernourished with a body mass index (BMI) of less than 18. Only 26.7% of them were found to be having a normal BMI. 10.9% were overweight and 13.3% were obese (Figure 1).
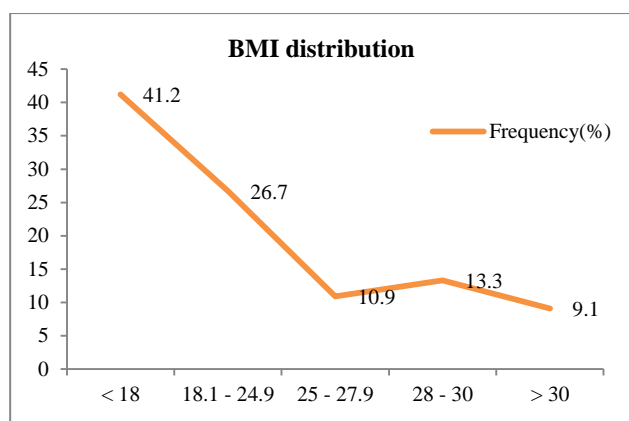
Figure1: BMI distribution among rural elderly women.

Most of the chronic illnesses reported were arthritis (73.3%), visual problems (58.8%), dental and chewing difficulty (50.3%). The other morbid conditions seen were hearing difficulties, hypertension, type-2 diabetes mellitus, bronchial asthma and some genitourinary conditions (Figure 2).
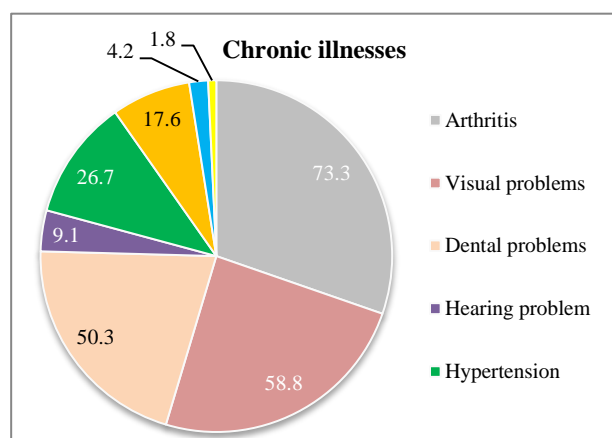
Figure 2: Morbidity pattern – chronic illnesses reported in the elderly women.

DISCUSSION

Several studies done on the elderly population in India revealed that majority of them unemployed and illiterate.[1] In the present study, a lot of the participants were financially dependent (83.6%) while the rest of them had some source of income.

Obesity at the community level can be defined by applying the body mass index (BMI) which is a useful index of relative weight. In the present study, 41.2% of the elderly were found to be thin and undernourished (BMI <18 kg/m^2). 10.9% of the elderly were overweight (BMI >25 kg/m^2). Similar findings were found in a study conducted by Purthy et al.[2]

Among the morbidities, joint pain and visual problems along with dental problems were reported to be the most common in this study. Shraddha et al found that diseases of the eyes were most prevalent among all morbidity conditions and cataract was found to be the most common among eye disorders.[1] In the present study, 26.7% of them were found to be hypertensive which is similar to the findings of Shraddha et al which is lower than that found in a study conducted by Hameed et al.[1,8] Also, only 4.2% of the participants of the current study reported to be suffering from bronchial asthma which is similar when compared to 2.2% prevalence found by Shraddha et al in their study.[1]

CONCLUSION

Though the Indian culture is automatically respectful and supportive of elders in many ways, there is a higher prevalence of multiple morbid conditions among them. It is evident from this study that majority of the elderly women are suffering from one or multiple chronic illnesses. This study has highlighted a high prevalence of morbidity and identified common existing medical problems such as arthritis, cataract, dental problems, hypertension, and diabetes mellitus. Awareness should be created among the elderly population regarding the importance of regular medical check-ups to ensure prevention and early detection of the chronic diseases. Also, health care providers should be trained to manage these issues in a better way for a positive outcome. As a matter of fact, there is an urgent need to develop better health care services for the elderly women residing in rural areas in order to keep chronic illnesses at bay.

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