

Morbidity Pattern in the Inmates of Residential Ashram in Rural Dakshina Kannada District, Karnataka

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Abstract

Background: India is projected to be the world's most populous country by 2025. Due to advents of urbanization, industrialization, education, and exposure to western lifestyles, the social values towards elderly are changing leading to a rapid breakdown from a joint family support system to nuclear family system. Finally, this unattended group of people lands up in places such as residential ashrams. The present study was undertaken to assess the health status and socio-demographic profile of inmates staying in the residential ashrams and planning of health care services for them.

Objectives: (1) To study health status of inmates residing in the ashram, (2) To study socio-demographic profile.

Materials and Methods: A cross-sectional study was done among the inmates of residential ashrams in rural field practice area of the Private Medical College in Mangalore, from June 2013 to May 2014. The study comprised a total of 179 inmates. A pretested semi-structured questionnaire was used to collect data regarding morbidity pattern and socio-demographic profile. Statistical analysis was performed using SPSS software version 16.

Results: The study comprised 179 inmates. 23.5% of the adults were illiterates. 22.3% of adults were suffering from 2 to 3 types of morbidities. The morbidity pattern of inmates was mainly anemia (64.2%) followed by hypertension (51.9%) and joint problems (44.1%). The other problems include gastrointestinal symptoms (27.4%), visual acuity problems (24%), respiratory symptoms (22.3%), obesity (20.7%), and diabetes (17.3%).

Conclusion: The study showed nearly all inmates suffered from one or more type of illness, the most common being anemia, hypertension, and joint problems. Hence, there is a need to address the health problems of inmates staying in residential ashrams.

Key words: Age group, Elderly, Health status, Morbidity, Old age home, Rural

INTRODUCTION

In India, in the last one and half decades, the longevity of the people has increased due to decline in mortality rate, better medical and health care facilities, and improvements in overall quality of life of people.¹ In 2001, geriatric population was 77 million in India and it is estimated that in India total number of elderly will rise to 150 million by 2025.² Due to advents of urbanization, industrialization, education, and exposure to western lifestyles, the social

values toward elderly are changing leading to a rapid breakdown from joint family support system to nuclear family system which further leads to problems such as economic insecurity, loneliness, lack of emotional support, lack of protection for their lives and property and dependency.³ Along with the social problems, aged people also suffer from many health problems. About 50% of the Indian elderly population has some or the other form of chronic disease and 5% suffer from immobility. Subsequently, these elderly are left over unattended and lands up in places such as residential ashrams.

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MATERIALS AND METHODS

A cross-sectional study was done among the inmates of residential ashrams in rural field practice area of Private Medical College in Mangalore, from June 2013 to May 2014.

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The study comprised a total of 179 inmates. A pretested semi-structured questionnaire, clinical examination, investigation were used to collect data regarding morbidity pattern and socio-demographic profile. Statistical analysis was performed using SPSS software version 16.

Inclusion Criteria

All inmates of residential ashrams.

Exclusion Criteria

Inmates not willing to give their consent to participate in the study.

RESULTS

Table 1 represents the majority of the population ($n = 179$) belonged to the age group 60-69 (26.2%) years, followed by 20.1% in 50-59 years, and the least being 1.1% in the age group 90-99 years. The mean age of the group was 60.83 ± 14.28 years (males - 63.24 and females - 59.24).

Figure 1 represents study population ($n = 179$) consisted of 108 (60.3%) females and 71 (39.7%) males. In this study, females outnumbered the males.

Table 2 shows in this study ($n = 179$) in terms of religion, almost all (97.2%) residents were belonging to Hindu religion, followed by Muslims (2.2%) and least were Christians (0.6%). 36.3% of adults were married, 21.8% widow/widowers, 7.8% divorced/separated, and 34.1% were unmarried. About 27.7% of the married residents were living in the residential ashrams with their spouse. 23.5% of the adults were illiterates while the rest 76.5% were literate.

Table 3 represents the morbidity pattern of the population ($n = 179$) were mainly anemia (64.2%) followed by hypertension (51.9%) and joint problems (44.1%). The other problems include gastrointestinal symptoms (27.4%), visual acuity problems (24%), respiratory symptoms (22.3%), obesity (20.7%), diabetes (17.3%), urinary symptoms, cardiac illness, impaired hearing, and cerebrovascular accident.

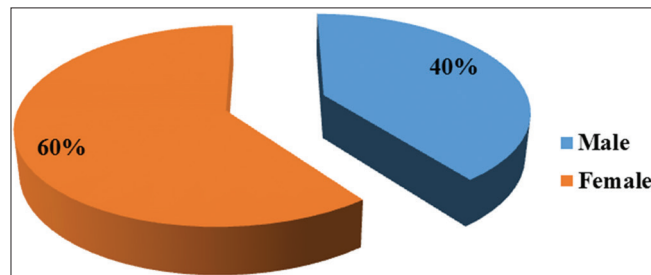


Figure 1: Pie chart representing the sex distribution of adult population ($N = 179$)

There was statistically significant difference in morbidity among males and females with respect to respiratory symptoms, cardiac illness, cerebrovascular accident, urinary symptoms, and impaired hearing. Joint problems and anemia were higher among females as compared to males.

Table 1: Age and sex distribution of the study population ($N=179$)

Age groups in years	N (%)		
	Males N=71	Females N=108	Total N=179
30-39	5 (7.0)	7 (6.4)	12 (6.7)
40-49	9 (12.6)	19 (17.5)	28 (15.6)
50-59	7 (7.0)	29 (26.8)	36 (20.1)
60-69	23 (32.3)	24 (22.2)	47 (26.2)
70-79	17 (23.9)	17 (15.7)	34 (18.9)
80-89	9 (12.6)	11 (10.1)	20 (11.1)
90-99	1 (1.4)	1 (0.92)	2 (1.1)
Mean age±SD	63.24±13.66	59.24±14.51	60.83±14.28

SD: Standard deviation

Table 2: Socio-demographic profile of the study population ($N=179$)

Variables	Categories	Total N (%)
Religion	Hindu	174 (97.2)
	Muslim	4 (2.2)
	Christian	1 (0.6)
Marital status	Married	65 (36.3)
	Alone	61 (34.1)
	Divorced/separated	14 (7.8)
	Widow/widower	39 (21.8)
Education status	Illiterate	42 (23.5)
	Literate	52 (29.1)
	Primary school	35 (19.6)
	Middle school	32 (17.9)
	High school	18 (10.1)

Table 3: Morbidity profile of the study population ($N=179$)

Morbidity condition	Total	Male	Female	P value
	N=179 (%)	N=71 (%)	N=108 (%)	
Impaired vision	43 (24.0)	17 (23.9)	26 (24.0)	0.984
Impaired hearing	28 (15.6)	16 (22.5)	12 (11.1)	0.04*
Hypertension	93 (51.9)	35 (49.2)	58 (53.7)	0.564
Diabetes mellitus	31 (17.3)	14 (19.7)	17 (15.7)	0.491
Obesity (BMI>25)	37 (20.7)	15 (21.1)	22 (20.4)	0.952
Urinary symptom	26 (14.5)	17 (23.9)	9 (8.30)	0.004*
Respiratory diseases	40 (22.3)	23 (32.4)	17 (15.7)	0.009*
Cardiac illness	15 (8.40)	10 (14.1)	5 (4.60)	0.026*
Cerebrovascular accident	8 (4.5)	6 (8.5)	2 (1.90)	0.037*
Gastrointestinal symptoms	49 (27.4)	22 (31.0)	27 (25.0)	0.380
Joint pain/joint stiffness	79 (44.1)	25 (35.2)	54 (50.0)	0.051
Anemia	115 (64.2)	43 (60.6)	72 (66.6)	0.405

* $p < 0.05$, Many of the subjects reported with multiple symptoms; Percentages are calculated on horizontal basis; P value analyzed by Chi-square test for 2x2 contingency table. BMI: Body mass index;

In the present study of morbidity among the adult population, one more age classification has been taken for the convenience of four groups for better comparison purposes.

DISCUSSION

The majority of the adult population in the present ($n = 179$) belonged to the age group 60-69 (26.2%) years, followed by 20.1% in 50-59 years, and the least being 1.1% in the age group 90-99 years.

In the study by Ramakrishna Reddy *et al.* in Bengaluru, Karnataka majority of the study population belonged to the age group 60-69 (49.3%) years, followed by 38.3% in 70-79 years, and the least being 12.1% in 80 years and above.⁴ In the study by Viveki *et al.*, in Belgaum city at old age homes, out of 73 elderly, majority were in the age group of 61-70 years (50.7%).⁵

In the study by Hegde *et al.* in Mangalore, the majority of the study population belonged to the age group 60-70 (46.91%) years, followed by 23.5% in 71-80 years, and the least being 7.2% in 80 years and above.⁶

In the study by Asadullah *et al.* in the OAHs of Udupi district, Karnataka, showed that majority (42.2%) were in the age group of 80 years and above. The mean age of male and female respondents were 75.3 (± 8.6) and 76.8 (± 7.7) respectively.⁷

In the present study, 108 (60.3%) were females and 71 (39.7%) were males. Females outnumbered the males. Similar findings were seen in the study by Banker *et al.* in Ahmadabad, the population consisted of 45.85% were males and 54.15% were females.⁸ In the study by Bansod and Paswan in the OAHs in Maharashtra, which also showed female predominance. Out of the 192 elderly, 45% were males and 55% were females.⁹ In the study by Jaiganesh *et al.* in Chennai, number of females are more than the number of males, i.e., females were 58.7%, and males were 41.3% in a total population of 450 individuals.¹⁰ In the study by Viveki *et al.* in Belgaum city at old age homes, out of 73 elderly, 54 were females (74.0%).⁵

In the present study, majorities (97.2%) were Hindus, followed by Muslims (2.2%), and least were Christians (6%). 36.3% of adults were married, 21.8% widow/widowers, 7.8% divorced/separated, and 34.1% were unmarried. About 27.7% of the married residents were living in the residential ashrams with their spouse. 23.5% of the adults were illiterates while the rest 76.5% were literate.

Similar results were seen, in the study by Rani *et al.* in OAHs of Chennai, and showed that around 71% belonged to

Hindu religion, 28% were Christians, and Muslims 1%.¹¹ In the study by Jaiganesh *et al.* in Chennai, majority were Hindus 62% followed by Christians 34% and Muslims 14%.¹⁰ In the study by All India Institute of Medical Sciences, New Delhi found majority of inmates were Hindus (73%) followed by Christians (21%) and Sikh (6%) in OAHs at New Delhi.¹²

In the present study morbidity, the pattern of the adult population was mainly anemia (64.2%) followed by hypertension (51.9%) and joint problems (44.1%). The other problems include gastrointestinal symptoms (27.4%), visual acuity problems (24%), respiratory symptoms (22.3%), obesity (20.7%), diabetes (17.3%), urinary symptoms, cardiac illness, impaired hearing, and cerebrovascular accident.

In the study by Viveki *et al.* in Belgaum city at old age homes, the prevalence of hypertension was (34.2%).⁵ In the study by Jaiganesh *et al.* in Chennai, the prevalence of hypertension was 54%.¹⁰ In other study by Kalavathy *et al.* in Kerala, found the overall prevalence of hypertension was 51.8%.¹³ In the study by Banker *et al.* in Ahmedabad, the prevalence of hypertension was 54.2%.⁸ In the study by Viveki *et al.* in Belgaum city at old age homes, the prevalence of locomotive and muscle disorders was 35.6%.⁵ Prevalence of musculoskeletal problems was 36.8% (males - 19.5% and females - 64.8%) and more in females in the study by Kishore *et al.*¹⁴ In the study by Ramakrishna Reddy *et al.* in Bengaluru, 17.8% of inmates had musculoskeletal problems.⁴

In the study by Hegde *et al.* in Mangalore, the prevalence of ophthalmological problems in 38.7% in the old age homes.⁶ In other study by Rani *et al.* in Chennai, the prevalence of visual problem was 35.1%.¹¹ In the study by Banker *et al.* in Ahmadabad impaired vision was found to be (44.2%), 82.3% were using spectacles followed by walking sticks.⁸

CONCLUSION

The study showed all inmates suffered from one or more type of illness, the most common being anemia, hypertension, and joint problems. Hence, there is a need to address the health problems of inmates staying in residential ashrams. Regular screening program should be done for detecting various diseases at an early stage among inmates of residential ashrams. Nutritional status of inmates should be checked at least once in a year.

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