Original article

Health problems of elderly residing in urban areas, Kathmandu

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Abstract

Introduction: Old age is the time associated with biological, psychological and social changes which leads to vulnerable conditions to acquire physical, sychological and social health problems. This study aims to find out the health problems among elderly and to determine the factors associated with health problems.

Methods: A cross sectional descriptive study was carried out among 100 elderly who were the members of senior societies of ward number 2 & 14 of Kathmandu valley. Elderly of aged 70 years & above were selected purposively for the study.

Findings: The mean age of the elderly was 77.5 years among them 62% were females. Self reported chronic illnesses among elderly were hypertension 22%, chronic obstructive pulmonary diseases 19%, diabetes 15%, cardiac problems and joint problems 11 %. Further, 21% had hearing impairment and 11% had vision impairment. Concerning the functional impairment, 51% were partially dependent in performing some of the activities of daily living. Regarding psychological problems, 34% had mild cognitive impairment and 33% had moderate cognitive impairment. In addition mild depression was identified among 12% of the elderly further, 26% had experienced abuse by their family members. Moreover, there was a statistical association between advanced age and functional impairment. Similarly illiteracy and female sex were significantly associated with cognitive impairment.

Conclusions: Hypertension, chronic pulmonary diseases, diabetes, joint problems are the common physical health problems prevalent among elderly. Functional impairment is higher among increased age elderly. Psychological health problems such as cognitive impairment and depression are identified. Experiences of being abused by the family members are also discerned. Hence, it is recommended to plan health promotional strategies for addressing these old age related health problems. In addition, care of elderly need to be in coordinated with their family members.

Key Words: Elderly, Health Problems, Urban areas

Introduction

In this 21st century, with the advancement in medical science and technology, increasing life expectancies, reducing mortality rate and declining fertility rate there is increment in the trend of population ageing[1]. Globally, in the year 2012, elderly consisted of 12% people which are expected to be increase up to 22% by the year 2050. Further, this pace of ageing is faster in developing countries[2, 3]. In the year 2011, Nepal had 9.1% of its total population of old age. During the year 1991-2001, the annual elderly population growth rate of Nepal was 3.39 % which is higher than an annual population growth rate of 2.3% [4]. Thus concerns over the health of elderly are increasing in Nepal with this unprecedented growth of the population.

Old age is associated with physical and mental health problems. Studies reported that non communicable diseases like cardiovascular diseases, chronic respiratory diseases, diabetes are common in old age adding the disease

burden in both developed and developing countries [5-8]. Moreover, very old age people lose their ability to live independently as a result of limited mobility, frailty or other physical conditions that require long term care [9]. However, very few studies are available regarding functional state of elderly people in developing countries as in Nepal. Few studies conducted in Kathmandu valley revealed that 36% have impairment in doing intermediate activities whereas 8% had impairment in performing basic activities of daily living [10, 11].

Psychological health problems like depression, anxiety, cognitive impairment are more common among old age people. Studies noted that prevalence of depression varied from 20% - 50% depending on regions and settings [12-15]. Besides depression, some studies conducted in developed countries revealed that 40% of elderly were being affected by cognitive impairment [16, 17]. But on researcher's knowledge, no studies have been carried out with regard to the cognitive impairment among elderly in developing countries like in Nepal.

Further, abuse of the elderly is a social problem which is mostly a hidden form affecting both the physical and mental health of the geriatric population. Even in developed countries few studies are available on elder abuse [19, 20]. In Nepal, some evidences have emphasized the need to explore issues of elder abuse in Nepal [21].

Methods

This is a preliminary study report of quantitative portion of proposed mixed method study entitled "Health problems and lived experiences of elderly residing in urban areas of Lalitpur District". The objective was to assess the prevalence of physical and psychosocial health problems among elderly and to determine the factors associated with health problems. A descriptive cross sectional survey design was carried out from 18th march to 13th April, 2014. This study was carried out among 100 elderly of aged 70 years and above who were purposively selected from the list of two senior societies of ward number 2 and 14 of Kathmandu valley. Elderly who had communication problem were excluded. Data was collected by using interview method. Along with the researcher two trained enumerators collected the data.

A structured interview schedule was used to conduct interview. The instrument consisted of two parts. The first part included the socio economic information of and the second part measuring physical and psychosocial health problems of elderly. Self reported physical illnesses and functional impairment were collected to assess the physical health problems. Katz, scale of functional impairment (1983) was referred for assessing level of functional impairment [22]. The total score range from 0-20. A score of 20 means participant does not need assistance to perform activities and was independent. Score of 10 means participant was partially dependent who need some assistance in performing activities. A score < 10 indicates participant was fully dependent in performing activities.

Geriatric Depression scale (GDS) of Yesvage (1982) consisting of 15 items was adopted and two item was modified to screen for depression [23]. The total score range from 0-15. A score of 0- 4 refers no depression, 5-8 for mild, 9-11 for moderate & 12-15 for severe depression., and a score of 12-15 refers to severe depression.

The short portable mental status questionnaire by Feiffer (1975) was used to screen for cognitive impairment (CI) [24]. The total score range from 0-10. A score of 8 means having no CI. A score of 6- means having mild CI, score of 3-5 means having moderate CI and less than 2 means severe CI.

For measuring elder abuse vulnerability abuse screening scale (VASS) developed by Mishra (2003) was adopted and modified. 25 Internal reliability of the instrument was determined by considering the value of Cronach's alpha 'α' greater than 0.7 as acceptable range.

Prior to data collection, approval from research committee of nursing campus Maharajgunj as well as ethical approval from Institutional Review Board, Institute of Medicine was taken. Participants were verbally informed about the process of data collection including their voluntarily participation, their role, right to withdrawal at any time of data collection. Confidentiality was maintained during the process of data collection by coding the interview format. The data were analyzed by using descriptive & inferential statistics. Pearson chi-square test was used to measure association between variables.

Results

Table 1 Socio-demographic Profile of the Elderly n = 100

Variables	Percent
Age in (Years)	
70-79	77.0
≥ 80	23.0
Mean Age ± SD 77.5 ±6.77 Sex	
Female	62.0
Male	38.0

Family Type	
Joint	58.0
Nuclear	30.0
Extended	12.0
Education	
Illiterate	58.0
Literate	42.0
Marital Status	
Married	87.0
Unmarried	13.0
Living With	
Living in family	92.0
Living alone	8.0

Table 1 show that regarding the socio demography information, the mean age of the respondents was 77.5 years with SD ± 6.77. Sixty two percentages of them were female, among them 58% lived in joint family. Regarding their educational status 58% were illiterate.

Table 2 Self Reported Physical Health Problems among Elderly n=100

Physical Health Problems	Percent
Chronic Illnesses	
Hypertension	22.0
Chronic obstructive pulmonary diseases	19.0
Diabetes	15.0
Cardiac Problems	11.0
Joint problems	11.0
Others	
Hearing impairment	21.0
Gastritis	13.0
Repeated Chest infections	11.0
Vision Impairment	11.0
Male genital problem (Prostate)	11.0
Repeated urine infection	7.0
Female genital problem (Prolapsed)	4.0

* **Multiple responses**

Table 2 reveals that self reported chronic illnesses which were common among elderly were hypertension 22% followed by chronic obstructive pulmonary diseases 19%, diabetes 15 %, cardiac problems & joint problems 11% respectively. Hearing impairment was among 21% .Besides these, 11% male and 4.0% female had genitourinary problems.

Table 3 Functional Activities of Daily Living among Elderly n=100

Functional Abilities	Percent
Independent	47.0
Partially Dependent	51.0
Fully Dependent	2.0

* **Based on Katz activities scales of daily Living**

Table 3 signifies that based on Katz activities scales of six basic activities and four intermediate activities 51% were partially dependent who needs assistance to do some of their activities of daily living where as 2% were fully dependent.

Table 4 Psychological Health Problem: Depression among Elderly n=100

Level of Depression	
No depression	86.0
Mild Depression	10.0
Moderate Depression	2.0
Severe Depression	2.0

***Depression assessed by using GDS of 15 items.**

Table 4 shows that on having symptoms of depression, by using geriatric depression scale of 15 item questions, 10% had symptoms of mild depression and 2% had moderate and 2% had severe depression respectively.

Table 5 Psychological Health Problem: Cognitive Impairment among Elderly n=100

Level of Cognitive Impairment	
Intact Memory	33.0
Mild Cognitive Impairment	34.0
Moderate Cognitive Impairment	30.0
Severe Cognitive Impairment	3.0

***Based on short portable mental state questionnaire (SPMSQ)**

Table 5 reveals that on having cognitive impairment by using short portable mental state questionnaire of ten item questions, 34 % had symptoms of mild cognitive impairment, 30 % had moderate cognitive impairment &

3.0% had severe cognitive impairment respectively .

Table 6 Abuse Related Responses by the Elderly n=100

Experiences of Being Abused in Family	Total
No	74.0
Yes	26.0

Assessed by modified VASS

On self reported responses on being abused in family, based on modified VASS of six item questions, 26% of the respondents said that they were being abused by their family members in their daily living.

Table 7 Association of Functional Abilities: Demographical Variables

Variables	Functional Impairment		p- value ($\chi 2$)	OR (CI)
Age	**Yes (n=53)**	**No (n=47)**		
70-79	34	43	0.001**	0.791 (0.596-1.050)
>80	19	4		
Sex			0.087	0.491 (0.216-0.116)
Male	16	22		
Female	37	25		

* $p \leq 0.05$= statistically significant values

Table 7 reveals that there is a statistical association between increased age and functional impairment with p value 0.001 (OR 0.791 CI 0.596-1.050).

Table 8 Association of Cognitive Impairment: Demographical Variables

Variables	Cognitive Impairment		p- value ($\chi 2$)	OR (CI)
Age	**Yes (n=67)**	**No (n= 33)**		
70-79	51	26	0.766	0.858(0.314-2.347)
> 80	16	7		
Education				
Illiterate	49	9	0.002*	1.913 (1.352-2.707)
literate	18	24		
Sex				
Male	20	18	0.017*	0.355 (0.150-.840)
Female	47	15		

* Chi-square $p \leq 0.05$= statistically significant values

Table 8 illustrates that there is a significant association between educational status and cognitive impairment. Also the odds ratio revealed that illiterate elderly had 1.913 times risk of having cognitive impairment than literate. Also there is an association between female sex and cognitive impairment with p value 0.017.

Discussion

The result revealed majority of the respondents (92%) lived in their families which correspondence to another study in Nepal which depicted that 91% of the elderly respondents lived with their families in home settings [11].

Regarding physical health problems chronic illnesses such as hypertension (22%), chronic obstructive pulmonary disease

(19%), diabetes (15 %) joint problem (11%) & cardiac problems 11% were common among elderly. This finding corresponded to other studies conducted in Nepal , India & Turkey which found that hypertension and diabetes were more prevalent problems followed by respiratory problem, arthritis and heart diseases [6 -9] .

Concerning the functional impairment 51% of elderly were partially dependent who need assistance in doing their some of the activities of daily living. Consistent with this a study conducted among 598 elderly of developed countries revealed that 53.5% were dependent for at least one activity of daily living [26]. Further, in this study the functional impairment was significantly associated with increased age with p value 0.001. Similarly, Barua etal. (2011) revealed that prevalence of functional impairment was found to be significantly higher with increased with p value 0.009 [8]. Also , Mohanty etal. (2012) observed that there was a significant decline in the capacity to performing instrumental activities among older adults with 80yrs above with p value 0.001 [27]

Regarding Cognitive impairment we found that 34% had moderate cognitive impairment & 33 % had mild cognitive impairment. Differ to this result a study conducted in Malaysia by using elderly Cognitive Assessment Questionnaire found that 22.4% had cognitive impairment[17] .This differences might be as a use of different scale for measurement.

On prevalence of depression we found that 12% of the respondents had mild depression followed by 2% moderate & 2% severe depression. Similar to this Lupe etal. (2012) among developed countries found that prevalence was 17.1 % for mild depressive disorder and for major depression 4.5% [15]. Less similar to this Ghimre et al (2012) in community settings of Nepal found that prevalence of depression was 25. 4 %. Similarly Chalise & Rai among Nepalese Rai Older adults identified prevalence of depression of 29.7% [12]. Contrast findings was observed by Gautam & Houde (2011) in community of Nepal which showed that 57.3% had mild depression, 27.4 % of older adults had moderate and 15.3% had mild depression14. This difference might be due to differences in settings. Mentioned researchers had included older adults who had lived only with their married son's family.

The present study also revealed that 26% elderly people suffered from abuse in their family. Similar to this result Acirino et al (2010) in different areas of United States depicted that prevalent of different form of abuse was 23 % [20]. This finding is less similar than a study conducted by Geriatric center Nepal which revealed that 38.5% of abuse occurs mostly within home [21].

Conclusion

It can be concluded that major health problems among elderly are hypertension, chronic obstructive pulmonary diseases & diabetes. Just more than half (53%) are functionally impaired who need some assistance in doing their activities. Functionally impairment was higher among increased aged elderly. Concerning psychological problems 34 % had mild cognitive impairment followed by 33 % moderate cognitive impairment. Cognitive impairment was higher among female and illiterate elderly. Mild depression was identified among 10% elderly followed by 2% moderate & severe depression. Social problem such as experiences being abused by the family members are also noticed among 26% of the elderly. Hence it is recommended to plan health promotional strategies for addressing these old age related health problems. In addition care of elderly need to be in coordinated with their family members.

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