



Original Article

Dementia Prevalence Among Older Hospitalized Patients in Vietnam and Dementia Understanding of Their Caregivers

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ABSTRACT

Background/Purpose: As Vietnam's population ages, dementia, the leading cause of disability and mortality in older persons, is becoming more prevalent. This study measures the prevalence of dementia in hospital inpatients, evaluates their caregivers' understanding of dementia, and explores the caregivers' wishes for support services.

Methods: A cross-sectional study was conducted among inpatients aged ≥ 60 years in the geriatrics departments at three acute care hospitals in Ho Chi Minh City, Vietnam. Dementia was diagnosed by Diagnostic and Statistical Manual-5 (DSM-5) criteria. The understandings of the caregivers about dementia were evaluated by a questionnaire from the Northern Ireland Life and Times Survey. The wishes for support services were assessed with a culturally adapted questionnaire.

Results: A total of 367 participants were recruited with the mean age of 77.5 ± 9.2 years, females being 59.7%. The prevalence of dementia and mild cognitive impairment were 24.3% and 14.4%, respectively. The vast majority of the caregivers had a low level of understanding of dementia (92.1%), and 74.2% of them reported a need for help in caregiving. The caregivers wished for help from relatives and supportive home-care services from someone they could hire.

Conclusion: Dementia is prevalent in Vietnamese hospitals but caregivers' understanding about this disease was low. Caregivers wish to obtain help from relatives and hired home-care support.

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Keywords

Dementia, mild cognitive impairment, caregivers, support services.

1. INTRODUCTION

As the aging population continues to grow, particularly

in developing countries, an increase in dementia is to be expected as well. In 2010, 58% of all people with dementia worldwide resided in low- or middle- income

countries.¹ The estimated prevalence of dementia in Asia was 5.7-6.64% in 2010.¹ The number is anticipated to double every 20 years. According to a 2014 study in Vietnam, the prevalence of dementia among older persons in community was 9.4%.² Dementia is the leading cause of disability and dependency in the older population.³ Cognitive disability affects the older people's ability to remember and process information.⁴ At later stages of dementia, most people have impairment in activities of daily living (ADL) and become dependent on caregivers. People with dementia are more likely to be hospitalized⁵ and have a longer length of stay than those without dementia.⁶ This increases both health care cost and caregiver burden.⁷

Most dementia patients are taken care of by their families,⁸ and family caregivers often entails heavy physical, emotional, and financial burdens.⁹ As a result, anxiety and depression are prevalent among caregivers.^{10,11} In Vietnam, families typically take full responsibility in taking care of the person with dementia due, in part, to a lack of supportive health services compared to developed countries. A study in China of 1,425 caregivers of dementia in older people with dementia reported that 62% of them experienced a burden associated with dementia care.¹² Another study in Hong Kong of 144 caregivers identified that only 8% of them knew well about dementia while the remaining ones knew nothing, a little or something about this disease.¹³

In Vietnam, few studies on dementia have been done. Caregiver's understanding about dementia is poor. With the increase in the dementia population and the significance of dementia in hospitalized patients,¹⁴ it is important to determine the prevalence of dementia in inpatients, to assess caregivers' understanding of this disorder, and their wishes for support to provide good care. Therefore, the aim of this study was to determine the prevalence of dementia in inpatients, their caregivers' understanding of this disease, and their wishes for support.

2. METHODS

2.1. Design and Study Sample

A cross-sectional study was conducted in the geriatrics departments at three hospitals (University Medical Center, Nguyen Tri Phuong Hospital, and Gia Dinh People's Hospital) in Ho Chi Minh City. They all are located in urban areas. The study was approved by The Ethics Committee of University of Medicine and Pharmacy at Ho Chi Minh City in Vietnam. Informed consent was obtained from all participants. A pilot study was conducted with 100 inpatients to examine the feasibility of the questionnaire, identify problems in interviewing and estimate the sample size of this study. The prevalence of dementia was 29% in the

pilot study. Using this prevalence, a confidence level of 95% and an error margin of 0.05, the sample size was calculated to be at least 317.

2.2. Participants

In this study, 377 individuals were recruited over six months (from April to October 2015), excluding the pilot study sample. The inclusion criteria were: age 60 years or older as per based on WHO's definition of older person,¹⁵ and being able to communicate. Older patients with delirium, terminal illnesses, severe visual or auditory impairment, severe articular stiffness were excluded. Five individuals were excluded because of terminal illness; the other five had severe visual or auditory impairment.

2.3. Procedures

All participants were assessed within 72 hours of admission by three geriatricians at all three hospitals. A diagnosis of dementia (recently renamed termed major neurocognitive disorder) was based on Diagnostic and Statistical Manual-5 (DSM-5), and comprising cognitive deficits and impairment in instrumental activities of daily living (IADL).¹⁶ Mild cognitive impairment (MCI) (recently renamed termed minor neurocognitive disorder) was defined as a participant experiencing cognitive deficits without functional impairment.¹⁶

2.4. Understanding of Caregivers About Dementia

In the study, we defined the primary caregiver as the person who spent the most time in caring for the patient. The caregiver of the individual diagnosed with dementia was interviewed to assess their understanding of dementia. The questionnaire from the Northern Ireland Life and Times Survey¹⁷ comprised seven items with two options: true or false. The items included "people who eat healthy and exercise are less likely to get dementia," "dementia is a disease of the brain," "there are drug treatments that help with dementia," "dementia can be cured," "dementia is a part of normal aging", "dementia is another term of Alzheimer's disease," and "there are many types of dementia." The questionnaire was translated forward from English into Vietnamese by a geriatrician whose mother tongue was Vietnamese. An expert panel reviewed and resolved inadequate expressions. The revised forward translation was translated backward into English by a bilingual physician whose first language was English. The expert panel reviewed the two translations to make a pre-final version of the questionnaire. Then it was tested in 30 caregivers to determine that all items are comprehensive and acceptable before the final version was established. Four or less correct answers were coded as low understanding, five correct answers as medium understanding, and six or seven correct

answers as high understanding.¹⁷ The item “I think I know how to interact with a dementia patient” was added to evaluate the perceived knowledge of caregivers about dementia.

2.5. Wishes for Learning About Dementia

The two questions “would you like to learn about dementia and how to take care of a dementia patient?” (yes/no) and “what type of education about dementia would you like most?” were given to interview about wishes for learning about dementia. The dementia caregiver chose one answer (television/ newspaper/ public education/ a training course/ leaflets/ a book).

2.6. Caregiver Burden

The two questions “Do you feel strained when you are around your relative?” and “Do you feel your health has suffered because of your involvement with your relative?” were extracted from The Zarit Burden Interview 18 to evaluate the burden of caregivers.

2.7. Wishes for Support Services

Dementia patient caregivers’s wishes for support were investigated by a questionnaire with three items: “Do you need support in caring for the patient?” (yes/no); “What type of people would you need help from?” (a relative/a neighbor/a hired person/a social worker); and “What type of supportive care would you prefer?” (nursing home/day care center/ hiring a person). In each question, the participant selected one category.

2.8. Analysis

Chi-square tests were used to compare categorical variables, and Fisher’s Exact tests were used in case of expected percentage of cells less than 5%. Data were analyzed by SPSS 16.0 package (IBM Corp in Armonk, NY, USA).

3. RESULTS

A total of 367 inpatients were included in the study within six months. The mean age was 77.5±9.2 years. Age ranged from 60 to 100 years. Females accounted for 59.7%. Among the participants, 315 (85.8%) were from urban areas, whereas 52 (14.2%) were from rural areas. The individuals with low literacy were 21 (5.7%).

3.1. The Prevalence of Dementia and MCI in Elderly Inpatients

The overall prevalence of dementia in inpatients in geriatrics departments was 24.3% (89 individuals). The number of participants who had MCI was 53 (14.4%). There was no significant difference between males and females ($p=0.850$).

Table 1. The prevalence of dementia and MCI from demographic characteristics.

Characteristics (Total Number)	Number (%) with Dementia	Number (%) with MCI	Number (%) of Healthy People	p
Age group				
60-69 (78)	3 (3.9)	9 (11.5)	66 (84.6)	<0.001
70-79 (131)	27 (20.6)	20 (15.3)	84 (64.1)	
≥80 (158)	59 (37.3)	24 (15.2)	75 (47.5)	
Gender				
Female (219)	58 (26.5)	31 (14.1)	130 (59.4)	0.476
Male (148)	31 (20.9)	22 (14.9)	95 (64.2)	
Living place				
Urban (315)	80 (25.4)	38 (12.1)	197 (62.5)	0.005
Rural (52)	9 (17.3)	15 (28.8)	28 (53.9)	

MCI, Mild cognitive impairment. Chi-square tests were used in the analysis.

Table 1 shows a remarkable increase in dementia with age; 37.3% of individuals over the age of 80 years met the criteria of dementia. The study found that there was no difference in dementia or MCI between men and women ($p=0.476$). However, the prevalence of dementia was significantly higher in urban areas (25.4% vs. 17.3%, $p=0.005$).

3.2. Understanding of Dementia Among Patient Caregivers

A total of 89 caregivers of patients with dementia were interviewed. The vast majority of caregivers had a low level of understanding about dementia (92.1%), whereas 7.9% of them were at the medium level and no one achieved a high level. Among 89 participants, 52.8% of them reported that they did not know how to interact with a dementia patient.

Table 2 describes the understandings of the caregivers about dementia. Nearly three- quarters of them knew that dementia is a disease of the brain (74.2%) but only one- fifth of them believed that dementia is not a part of normal aging (22.5%).

In the study, 95.5% of the caregivers wished to learn

Table 2. Understanding about dementia of the caregivers.

Questions	Answers	Respondents Got Correct Answers, n (%)
People who eat healthy and exercise are less likely to get dementia	True	80 (89.9)
Dementia is a disease of the brain	True	66 (74.1)
There are drug treatments that help with dementia	True	54 (60.7)
Dementia can be cured	False	34 (38.2)
Dementia is a part of normal aging	False	20 (22.5)
Dementia is another term for Alzheimer’s disease	False	17 (19.1)
There are many different kinds of dementia	True	15 (16.9)

more about dementia and how to take care of the patient. In the question "what type of education about dementia do you like most?" approximately half of the caregivers chose television (48.3%); 18% of them chose newspapers; 14.6% preferred public education while 9% favored a training course and the remaining selected internet, leaflets or a book (2.2%, 2.2%, or 1.1%, respectively).

3.3. Wishes for Support Services of the Caregivers

Over half of the caregivers (59.3%) reported that they had a feeling of strain in taking care of patients with dementia; 42.7% of the respondents felt strained sometimes while 12.4% had this feeling frequently and 2.2% always.

Nearly three quarters (73%) of the caregivers felt caregiving affected their health; most felt their health affected sometimes (48.3%), 21.3% frequently and 1.1% always.

Table 3 presents the wishes for the support of the caregivers. A majority of them needed help in taking care of patients with dementia (79.8%). A relative was the most favored type of people they desired to receive help from (70.4%). Hiring a person to help at home was the most preferred type of support (33.8%) followed by sending the patient to a day care center.

Table 3. The wishes for support services of the dementia patients' caregivers.

Support Requirements	n (%)
Need for support	
Yes	71 (79.8)
No	18 (20.2)
Need help from	
Relative	50 (70.4)
Hired someone	15 (21.2)
Social worker	5 (7)
Neighbor	1 (1.4)
Type of support preferred	
Hiring a person	24 (33.8)
Day care center	21 (29.6)
Nursing home	18 (25.3)
Other (hospital, a team)	8 (11.3)

4. DISCUSSION

4.1. Prevalence of Dementia in Older Inpatients

Complete information on dementia was available for 367 participants. We found that the prevalence of dementia was significant in geriatrics departments in hospitals with almost one-fourth (24.3%) of the study population. Apparently, age is the strongest risk factor for dementia. Above the age of 65 years, the risk of

dementia doubles roughly every five years.¹⁹ In the study, it was identified that the prevalence of dementia increased remarkably with age. These findings indicate that dementia is a major problem among older inpatients. There is a need for geriatricians to pay more attention to dementia among older people during hospitalizations. This disease should be screened and diagnosed. Early diagnosis enables an individual and their family to understand and prepare for the future in an appropriate way. This may enhance the quality of life of people with dementia and their families. The prevalence of MCI in our study was 14.4%. The individuals with MCI have a high risk for progression to dementia.²¹ Therefore, they should be identified and educated about strategies to counteract decline in thinking skills such as exercise, controlling cardiovascular risk factors, and participating in mentally stimulating and socially engaging activities.

4.2. Understanding of the Caregivers About Dementia

The vast majority of dementia patients' caregivers had low understanding about this disease (92.1%). This result is much greater than in a study of caregivers in Northern Ireland (57%)¹⁷ with the same questionnaire. It may be explained by the large discrepancies in public education and health literacy between developing and developed countries. Dementia was believed as a normal part of aging by most of the caregivers; so, they accepted it as a natural progression of older adults. Low understanding of dementia and its related behavioral disorders in later stages may result in greater caregivers stress. Over half of the respondents (52.8%) reported that they did not know how to interact with a patient with dementia. Therefore, dementia education campaigns and should be provided via television, newspaper, and social media to raise public understanding about this disease.

4.3. Wishes for Support of the Caregivers

In the study, 59.3% of the caregivers felt strained and 73% of them felt that their health was affected by caring patients with dementia. These findings are similar to previous studies.^{12,22} Dementia is related to long care hours and physical demanding caregiving. Several studies showed the deterioration in patients' ability to care for themselves and patients' behavioral problems have been associated with caregivers' burden.^{22,23}

Nearly 80% of dementia caregivers needed help. A relative was the most favorite type of person they would like to get help from. It may be due to Asian culture; most of the older people live with their families instead of living in nursing homes like Western countries. Therefore, it explains why most dementia caregivers desired help from their relatives. Social worker is still new in Vietnam; so, the caregivers knew

little about it. Hiring a person or a day care center were the types of support they preferred. These results should help to inform the government and non-governmental organizations in establishing the support models in the near future. In Vietnam, day care centers have been established recently in the two big cities to relieve the burden of caregivers and increase the quality of life for dementia patients. If this model is effective, it should be multiplied in the future.

There are some limitations in our study. We did not evaluate the demographics and education level of the caregivers; so, the relationship between associations with caregiver understanding of dementia were not identified. This study was conducted in hospitals so the results were not typical for the community in Vietnam.

5. CONCLUSION

Dementia was prevalent in older inpatients whereas the majority of the caregivers had low understanding about this disease. Physicians may wish to provide education about dementia to caregivers. More education programs about dementia should be provided in the community. Most of the caregivers needed help from their relatives in caregiving and hiring a person was the type of support they preferred. Consultation and support services from hospitals and the government are needed to improve the quality of life of dementia patients and caregivers.

CONFLICTS OF INTEREST

All contributing authors declare no conflict of interest.

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