

ORIGINAL ARTICLES

Health care seeking behaviour among the elderly in Hue City

Nguyen Hoang Lan^{1*}, Tran Thi Thanh Nga¹, Le Thi Bich Thuy¹

ABSTRACT

Objectives: the study is to investigate health care seeking behaviour and to identify factors associated those behaviour among elderly living in Hue city, Vietnam.

Methods: 400 old persons who suffered from health problem in the past one month were interviewed directly at their house by a structured questionnaire to survey health care seeking behaviour. Multivariate logistic regression models were applied to identify factors affecting health care seeking behaviour among participants.

Results: 72.5% of respondents sought treatment services for their acute illness in the past one month and 68% of them used prevention services in the past one year before the interview. In general, source of income, educational level and severe level of disease influenced health care seeking behaviour among participants.

Conclusions: The findings revealed limitation of the elderly to access health care services, especially health preventive services in Hue city. The identified associated factors can help formulate effective public health programs to improve health status among the elderly in Hue city as well as in the country in general.

Keywords: health care seeking behaviour, treatment services, health prevention services, the elderly, Hue city.

INTRODUCTION

Vietnam is facing a rapid increase in aging population. Older population, accounted for 10.2% of the country's population in 2014, has expanded much greater than the preceding years with an expected grow to reach almost 20% of the population by 2035 (1). In 2019, average life expectancy at birth of Vietnamese people was 71 years old for males and 76.3 for females (2). Although health status of people has been significantly improved for the past decades, the difference between life expectancy and healthy life expectancy at birth (that means that means average

number of years they live in a 'healthy' state (3) in Vietnam was relatively higher than in other countries. Average number of years lived with morbidity was estimated about 11 years for females and 8 years for males (4). According to a survey on the elderly in Vietnam in 2011, 65.4% of respondents self-assessed their health status at poor or very poor level (5). A report of Ministry of Health in 2018 showed that 95% elderly facing morbidity, mainly non-communicable diseases (NCDs) and they often suffer from many diseases simultaneously with averagely near three diseases per each older person (6). Hypertension, cardiovascular diseases



* **Corresponding author:** Nguyen Hoang Lan

Email: nhlan@huemed-univ.edu.vn

¹Faculty of Public Health, Hue University of Medicine and Pharmacy, Hue University

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and chronic obstructive pulmonary diseases (COPD) are common diseases in the elderly in the country (7). One of factors that affected health status of the elderly is health care seeking behaviour. This behaviour refers to a decision or an action taken by an individual to maintain, attain, or regain good health and to prevent illness (8) This influenced a person making decision to use available health care services. The present study is to investigate health care seeking behaviour and to identify factors associated those behaviour among elderly living in Hue city, Vietnam.

METHODOLOGY

Study design

An institution-based cross-sectional study

Time and location

Data collection was conducted between July and December 2019 in Hue city- the capital of Thua Thien Hue province located in the Central of Vietnam

Study participants

Older persons aged 60 years and over met inclusive criteria as follows: residents in Hue city; suffering from health problem in the past month, ability to communicate; agreement to participate in the study. Individuals who had psychiatric illness were excluded from the study.

Sample size was calculated using formula:

$$n = Z^2_{(1-\alpha/2)} \frac{p(1-p)}{d^2}$$

Where: $p = 0.48$ (proportion of elderly used outpatient services according to a study of Nguyen Thi Thang, et al among some provinces in Vietnam (9)

$d = 0.05$ (allowable error)

$$Z^2_{(1-\alpha/2)} = 1.96 (\alpha = 0.05)$$

Sample size calculated was 384.

The elderly persons were enrolled using multistage sampling:

- Stage 1: four among total 27 wards in the city were selected purposively based on geographical characteristics of the city. Two wards are located in the north and others are in the south of Huong river. The farthest ward is 6 km from center of Hue city.
- Stage 2: from list of the older persons provided by population collaborator at each ward, we visited the elderly at their house and selected participants by using a question to screen ‘did you suffer from any disease or illness (such as pain, discomfort, distress, weakness, fatigue) in the past month?’. The elderly who answered ‘yes’ and met inclusive criteria were invited to interview. At last, 400 older persons agreed to participate in the study.

Data collection

Data were collected between June to December 2019 by directly interviewing participants at their house using a structured questionnaire. The questionnaire included questions about socio-demographic characteristics (age, gender, marital status, educational level, economic classification of household, source of income, household structure), health status (chronic disease, acute illness during the past month, level of disease), and health care seeking behaviour

In this study the concept “health care seeking behaviour” refers treatment seeking behaviour (using professional advice or outpatient or inpatient services) and health prevention service seeking behaviour.

- Treatment seeking behaviour was divided into 2 groups: ‘Yes’ when the elderly used at least one treatment service for their illness and ‘No’ when they did not use any treatment service or self-treatment for their illness in the past one month before interview

- Health prevention service seeking behaviour was divided into 2 groups: ‘Yes’ when the elderly used at least one among services following: vaccination, periodic health examination, periodic medical examination, health education in the past one year before interview. ‘No’ when they did not any those services

Data analysis

Descriptive statistics such as frequency and percentage were used to summarize the personal characteristics and classify health care seeking behaviour of participants. Two multivariate logistic regression models were employed to identify the potential factors associated with treatment and health prevention service seeking behaviour the

among the elderly. In the model, treatment and health prevention service seeking behaviour were considered dependent variables. Predictor variables included all participants’ characteristics including socio-demographic characteristics, economic situation and health status of participants. An alpha level of 0.05 was considered statistically significant.

Ethical consideration

The study proposal was approved by University of Medicine & Pharmacy, Hue University (Decision No: 2279/QĐ/ĐHYD, dated July 7, 2019). In addition, approval for data collection at the sites was obtained from Health Center of Hue city and local government. The interview of study subjects was performed with their verbal permission after they were given adequate information about the study.

RESULTS

General characteristics of participants

Table 1. Characteristics of participants (n= 400)

	Characteristics	n	Percentage
Sex	Male	177	44.3
	Female	223	55.7
Age group (Year)	60 – 69	209	52.2
	70 – 79	103	25.8
	≥ 80	88	22.0
	Mean age (SD): 71.8 (9.1); Min: 60; Max: 97		
Education level	Under secondary school	165	33.8
	Secondary school and above	235	66.2
Source of income	Working to earn their living	85	21.3
	Retiree or pensioner	138	34.5
	No income	177	44.2

Married status	Single/divorced/widow/widower	126	31.5
	Married	274	68.5
Number of generations in family	2 generations and below	203	50.7
	3 generations and above	197	49.3
Economic situation of household	Poor/ near poor	24	6.0
	Normal	376	94.0
Co-payment level with health insurance	0%	129	32.2
	5%	99	24.8
	20%	172	43.0
Chronic disease	Yes	304	76.0
	No	96	24.0
Form of disease	Acute	218	54,5
	Acute stage of chronic disease	182	45,4
Level of illness	Minor	150	37.5
	Moderate/severe	250	63.5

Table 1 showed that participants aged 60-69 years were the majority (55.2%) with mean age of 71.8 (SD: 9.1). More than half of them were female. 66.2% of them attained secondary school and above. 21.3% of participants were working to earn their living, 34.5% of them were retiree or pensioners, left number did not income. 68.5% of them were maintaining marital status. There were 6% of the interviewee's households were classified as poor or near poor. Nearly half of respondents lived in a family with three generations and above. All participants had a

health insurance card with co-payment levels set at 20%, 5% and 0%, accounting for 43%, 24.8% and 32.2%, respectively. Most of them got at least one chronic disease (76%). 54.5% of participants stated that they suffered from an acute illness and nearly half of them experienced acute stage of chronic disease in the last one month before the interview. Majority of them (63.5%) got moderate and severe illness that influenced their daily activities.

Health care seeking behaviour among the elderly

Table 2. Characteristics of treatment seeking behaviour of the elderly in the past one month

Characteristics		n	Percentage
Treatment seeking behaviour	Yes	290	72.5
	No treatment/ self-treatment	110	27.5
Services used	Taking medical advice	140	35.0
	Outpatient	205	51.2
	Inpatient	107	26.8
Treatment site selected	Central hospital	103	25.8
	Public hospitals	222	55.5
	Commune health center	33	8.3
	Private health clinics/hospital	28	7.0
	Family medical doctor	25	6.3
Reasons for choosing treatment site	Good quality of health services	162	40.5
	Affordable medical expenses	66	16.5
	Near the house	149	37.3
	Regulation of health insurance	282	70.5
	Simple formalities	193	48.3

72.5% of elderly reported that they took treatment for their acute illness at health facilities during the past month before the interview. The services that were used most were outpatient services (51.2%). More than half of participants chose public hospitals for

their treatment. The most common reasons for choosing treatment site were explained to be regulation of health insurance, simple formalities and good quality of health care services, accounting for 70.5%, 48.3% and 40.5%, respectively (Table 2)

Table 3. Characteristics of health prevention service seeking behaviour of elderly in the past one year

Characteristics		n	Percentage
Health preventive service seeking behaviour	Yes	272	68.0
	No	128	32.0
Services used	Vaccination	49	13.2
	Periodic health examination	66	16.5
	Periodic medical examination	149	37.3
	Health education	233	58.3

Table 3 showed that there were 272 older persons used prevention services in the past one year before the interview, accounting for 68%. Health education was service that was

chosen the most (58.3%), next was periodic medical examination (37.3%).

Factors associated with health care seeking behaviour among elderly

Table 4. Factors associated with treatment seeking behaviour among elderly

Characteristics		OR	p value	95% CI
Source of income	Working to earn living	1		
	Retiree/ pensioner	6.3	0.019	1.35 - 28.96
	No income	3.4	0.008	1.36 - 8.28
Educational level	Under secondary school	1		
	Secondary school & above	3.3	0.006	1.41 - 7.90
Quality of health services	Not good	1		
	Good	5.1	0.001	1.88 - 13.98
Simple formalities	No	1		
	Yes	6.7	<0.001	3.15 - 14.16
Level of illness	Minor	1		
	Moderate/severe	17.7	<0.001	7.75 - 40.25

Table 4 revealed only factors significantly associated treatment seeking behaviours among elderly in the study ($p < 0.05$). Elderly who were more likely seeking health care than their counterparts when suffered from acute illness including retirees/pensioners and elderly without income (OR: 6.3; 95% CI: 1.35-28.96 & OR: 3.4; 95% CI: 1.36-8.28, respectively), participants attained

secondary school education and above (OR: 3.3; 95% CI: 1.41-7.9), the elderly who assessed good quality of health care services (OR: 5.1; 95% CI: 1.29-6.93), participants who were pleasure with formalities at health facilities (OR: 6.7; 95% CI: 3.15-14.16) and respondents who suffered from moderate or severe illness (OR: 17.7; 95% CI: 7.75-40.25).

Table 5. Factors associated with health prevention service seeking behaviour among the elderly

Characteristics		OR	p value	95% CI
Age group (years)	≥ 80	1		
	70-79	2.94	0.021	1.18 - 7.34
	60-69	3.72	0.008	1.39 - 9.89
Educational level	Below secondary school	1		
	Secondary school & above	3.5	<0.001	1.88 - 6.55
Source of income	Working to earn living	1		
	Retiree/ pensioner	2.91	0.032	1.09 - 7.77
	No income	1.23	0.542	0.63 - 2.43
Co-payment level with health insurance	20%	1		
	5%	2.0	0.136	0.80 - 5.07
	0%	3.42	0.005	1.45 - 8.09
Level of illness	Minor	1		
	Moderate/severe	2.96	<0.001	1.73 - 5.09

In table 5, factors which were significant relationship with health prevention service seeking behaviour among the elderly were confirmed following, age group: OR for '70-79': 2.94 (95% CI: 1.18-7.34) and OR for '60-69': 3.72 (95% CI: 1.39-9.89), educational level: OR for 'secondary school & above': 3.5 (95% CI: 1.88-6.55), way of earning: OR for 'retiree/pensioner': 2.91 (95% CI: 1.09-7.77) and OR for 'no income': 1.23 (95% CI: 0.63-2.43), co-payment level with health insurance: OR for 'co-payment of 5%': 2.0 (95% CI: 0.80-5.07) and OR for 'co-payment of 0%': 3.42 (95% CI: 1.45-8.09) and level of illness: OR for 'moderate/severe': 2.96 (95% CI: 1.73-5.09).

DISCUSSION

Health care seeking behaviour among elderly

Among the elderly suffered from health problem in the past one month before interview, there were 76.6% of them using treatment services at health facilities. The finding is higher than that of Nguyen Thi Thang et al (2015). The author reported that 44.4% of older persons in urban area in Vietnam visited health facilities for treating their illness (9). The improvement in Vietnamese government's policies on older person including integrating health care for older persons into the current health system at four level (10), providing health insurance card free for the elderly aged 80 and above and utilization of insurance based health care services without reference requests at provincial level (11) have increased opportunity for the elderly to access to health facilities. Our result is in line with that of Falaha et al in Ethiopia (72.3%) (12). Among treatment services used, outpatient services

were chosen by majority of participants (51.2%). This is similar to a study of Giang et al using data from Viet Nam Household Living Standard Surveys (VHLSS) in 2008 (54.1%) (13). Normally, except for severe illness, outpatient services are the first choice of people when faced health problem. Inpatient services are solution in case of severe illness or ineffective outpatient treatment. Reasons for choosing health facilities explained why public hospitals were given priority to visit by more than half of participants (55.5%). These facilities provide insurance- based health care services. Similarly, Lena et al reported that Vietnamese older patients often visited government sites due to trust, familiarity and insurance coverage (14).

In term of health prevention service seeking behaviour, health education was used by more than half of the elderly in the study. This is popular service in grassroot level of health system in Vietnam, people can access it free of charge therefore majority of the elderly were interested in. Surprisingly, there were 76% of participants got at least one chronic disease however only 37.3% of them reported that they took periodic medical examination during the past one year. Number of the elderly who used annual periodic health examination was fewer. Beside the reason is that the elderly can be poor interest in their health, out of pocket payment for these services might be barrier to their health prevention behaviour. The similar reason explained lowest percentage of older persons in the study taking vaccination (12.3%). Our finding is lower than previous studies in the world. A report of European Center of Disease Control (ECDC) showed that 47.1% of elderly vaccinated against influenza (15). There were 59.9%, 55.1% and 20% of elderly in Singapore immunized vaccine against pneumonia, tetanus and herpes zoster,

respectively (16). In those countries, fee for vaccination in elderly is paid full or partly by Government or Health Insurance's budget (15).

Factors associated with health care seeking behaviour among the elderly

Factors associated with treatment seeking behaviour

Results of multivariate logistic regression model showed that source of income, educational level, quality of health care services, formalities at health facilities and severe level of disease influenced treatment seeking behaviour among the elderly who suffered from acute illness during one month before the interview. Older persons who were working were often busy for earning their living, they could ignore or self-treat their minor illness, even moderate illness. This can explain lower probability of seeking treatment for their acute illness in this group. The education of the patients significantly affects healthcare decisions. This finding is consistent with previous studies in Vietnam and in the world. Those with higher education tend to choose healthcare providers rather than self-treatment (17, 18). Good quality of health care services and simple formalities increased probability of using treatment services among the elderly in our study. Many studies showed that quality of care was leading choice criteria for health care in patients (14). Severe level of disease was associated with decision of elderly on treatment services that was also reported by some authors (14).

Factors associated with health prevention seeking behaviour

Age, educational level, source of income, co-payment level and level of illness were factors affecting health prevention seeking behaviour among older persons in the study. Utilization

of health prevention services was less as the age advanced. Bucatariu et al found that the patients aged 65 years and below with chronic diseases visited health facilities regularly to monitor risk factors and may undergo major lifestyle changes such as change of diet, walking and yoga (14). The elderly attained secondary school and above were interested in health promotion and prevention more than their counterparts did. Higher education level provided more opportunity for people to access knowledge on health promotion, therefore it could influence their choice about positive health behaviour. As earlier explanation, busy work decreased opportunity to use health prevention services among the elderly who were working to earn their living. Among health prevention services, periodic medical examination is covered by health insurance for chronic patients, this can be reason why elderly with lower co-payment level were likely more utilization of those services in the study. Understandably, the elderly who experienced severe level of illness during acute stage were likely more aware of usefulness of health prevention services, they reported more utilization of those services in the study.

CONCLUSIONS AND RECOMMENDATIONS

The findings from the study showed limitation of the elderly to access health care services, especially health prevention services in Hue city. In general, source of income, educational level, quality of health care services and severe level of disease were factors affecting health care seeking behaviour among older persons. In addition, good quality of health care services and simple formalities at health facilities attracted more older patients to visit health care sites while the younger ones

and lower level of co-payment with health insurance influenced positive behaviour seeking health prevention among the elderly. The identified associated factors can help formulate effective public health programs to improve health status among elderly in Hue city as well as in the country in general.

Conflict of interest: The authors have no potential conflict of interest.

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