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Knowledge of Aging and Attitudes
Toward Older Adults of Nurses Working
at a General Hospital in Vietnam

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Knowledge of Aging and Attitudes
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at a General Hospital in Vietnam

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TABLE OF CONTENTS

TABLE OF CONTENTS	i
ABBREVIATIONS	v
ABSTRACT	vi
I. INTRODUCTION	1
1. 1. Background	1
1.2. Research Purpose	4
1.3. Scope of the Research	4
II. LITERATURE REVIEW	5
2.1. Overview of Older Adults and Situation of Older Adults in Vietnam	5
2.2. Roles and Functions of Nurses for Older Adults	10
2.3. Roles of Nurses in Geriatric Care	12
2.4. Nurses' Knowledge of Aging and Its Correlates	13
2.5. Nurses' Attitudes Toward Older Adults and Its Correlates	16
III. METHODS	20
3.1. Research Design	20
3.2. Sample and Setting	20
3.3. Research Tools	24
3.4. Data Collection	27
3.5. Data Analysis	27
3.6. Ethics in Research	28

IV. RESULTS	30
4.1. General Characteristics of Study Subjects	30
4.2. Knowledge of Aging Among Nurses	33
4.3. Attitudes Toward Older Adults Among Nurses	36
4.4. Differences of Knowledge of Aging by General Characteristics	38
4.5. Differences of Attitude Toward Older Adults by General Characteristics	40
4.6. The Relationship Between Nurses' Knowledge of Aging and Attitudes Towards Older Adults	43
V. DISCUSSION	44
5.1. Nurses' Knowledge of Aging by General Characteristics	45
5.2. Nurses' Attitudes Toward Older Adults by General Characteristics	50
5.3. The Relationship Between Nurses' Knowledge of Aging and Attitudes Towards Older Adults	53
VI. CONCLUSION AND RECOMMENDATIONS	56
6.1. Key Findings	56
6.2. Strengths and Limitations	57
6.3. Recommendations	57
6.4. Conclusions	58
REFERENCES	60
APPENDIX 1: Questionnaire	65
APPENDIX 2: Abstract (Korean)	81

LIST OF TABLES

Table 1: Summary of Individual and Professional Characteristics of Respondents	32
Table 2: Level of Knowledge of Aging	33
Table 3: Description of Nurses' Knowledge of Aging	34
Table 4: Attitudes toward Older Adults	36
Table 5: Description of Nurses' Attitudes Toward Older Adults	37
Table 6: Differences in Overall Knowledge by General Characteristic Variables	39
Table 7: Differences of Attitude Toward Older Adults by General Characteristics	41
Table 8: Correlation between the knowledge of aging and attitudes toward older adults	43

LIST OF FIGURES

Figure 1: The Map of Viet Nam	21
Figure 2: The Theoretical Framework	23

ABBREVIATIONS

ADLs	Activities of Daily Living
FAQ	Palmore's Facts of Aging Quiz
KAOP	Kogan's Attitudes Toward Older People
KAOP-	Negative Attitudes Toward Older People
KAOP+	Positive Attitudes Toward Older People

ABSTRACT

Background: Population aging in countries around the world, including in Vietnam, is happening at a rapid pace. The proportion of older adults is increasing along with the increasing demand for health care for older adults. The need for nursing staff with knowledge about aging and the right attitude toward older adults is necessary in preparing to meet the needs of society today and in the future.

Purpose: This study aimed to explore the level of knowledge and attitudes toward older adults of nurses working at a general hospital at the provincial level in Quang Tri province, Vietnam as well as to identify the differences in knowledge of aging and attitudes toward older adults by general characteristics of surveyed nurses.

Methods: This study used a cross-sectional study investigating the knowledge of aging and the attitudes towards older adults of 240 nurses (219 female, 21 male nurses) using an online self-administered questionnaire that included the Kogan's Attitudes Toward Old People Scale (KAOP) and Palmore's Facts of Aging Quiz (FAQ). Older adults were defined as those aged 60 years and above for this study.

Results: All of the nurses (100%) had an average level of knowledge of aging (FAQ score from 18 to 35) and the majority of nurses (225, 93.8 %) had neutral attitudes (KAOP score from 102 to 136), 13 (5.4%) of nurses had positive attitudes (KAOP score from 137 to 204) and 2 (18.8%) had negative attitudes towards older adults (KAOP score from 34 to 101). 52% respondent had right perception of frailty which was found statistically significant with respondents' FAQ scores ($p < .05$) and negative attitudes toward older adults (KAOP-)

($p < .05$). Total KAOP scores were not significantly different regardless of age, gender, living with older adults, working departments, attending a geriatric course, attending in seminars on geriatrics. There was significant positive relationship between knowledge of aging and attitudes toward older adults.

Conclusions: Majority of nurses in Quang Tri General Hospital have an average level of knowledge of aging and a neutral attitude towards the older adults. It indicates that there is a need for improvement in knowledge of aging as well as attitudes towards older adults. Continuing training programs as well as profession development courses for nurses in geriatric care therefore should be designed and developed to raise better knowledge of aging and more positive attitudes toward older adults among nurses for providing better quality of older adult care.

Keywords: Older Adults, Knowledge of Aging, Attitudes towards older adults among nurses

I. INTRODUCTION

1. 1. Background

The world's population is getting aged due to increased longevity throughout the lifetime linked with reduction of birth rates. The age group of 65 and older has been growing fastest. World Population Prospects 2019 shows that 1 out of 6 people worldwide will be the age of 65 by 2050, up to 11 in 2019 (UN, 2019). In 2050, it is expected that people aged 80 and plus triple up to 426 million from 142 million in 2019. According to the UNFPA, low and middle income countries will form 80% of the global older population in 2050 (UNFPA, 2012) .

Vietnam's population has been ageing at a pace faster than any country in the region since 2011. There were 13% over 65 years and average life expectancy is 73.0 years. According to United Nation report, Vietnam is considered one of top 5 nations which have highest ageing speed of population. The proportion of older adults over 65 years old will reach about 18% of the population in 2040. As longevity increases in a fast speed in Vietnam and the national health insurance coverage up to 91%, among that about 70% of national health insurance spending in on elderly health care.

The fact is that there was significant and positive association between age and Difficulties in Activities of Daily Living (ADLs) and its weakness, the coming decade would be a critical need for protecting the expected aging population in Vietnam (Giang, Nguyen and Nguyen, 2020).

Among 63 provinces and cities in Vietnam, Quang Tri is a rural province which has a relatively high rate of emigration in the working age group, so the aging rate is high. The number of old people increased from 13% (63,260 older adults) in 2011 up to 14.8 %, reaching 99,463 older adults in 2020 respectively, higher than the country older adult population rate, 8.6 % in 2011 and 11.3 % in 2020. However, health care system in general, primary health care in particular has not yet adapted with rapid population aging orderly to improve older adults' life quality, “*Plan No. 110 on Older Adult Care Program up to 2030*” issued on June 14, 2021 by Quang Tri Provincial People Committee with objectives to provide more comprehensive caring activities (Quang Tri, 2021).

According to the World Nursing Association (1973), nurses are caregivers and support patients to perform daily activities. Especially in an aging population, older adult care as a nursing speciality is growing and taking care for aged people requires specific knowledge and abilities accordingly. Nurses are considered the frontline staff of hospitals when being in contact with patients. Nursing care for older adults as one of the leading role occupations, and the quality of nursing care for the elderly depends on the nurses' attitudes toward older adults (Neville, 2015). In the context of Vietnam's aging population today, especially in the field of geriatrics, nursing is even more important. However limited studies in Vietnam found there was insufficient knowledge in geriatric palliative care among health professionals in general, and among nurses in particular working in National Geriatric Hospital (Vu et al., 2019); significant shortage of knowledge and negative attitudes about

pain management among nurses working in National Geriatric Hospital (Nguyen et al., 2021).

Therefore, in order to provide good care and improve the life quality for older adults, it is crucial that working nurses have knowledge of aging and positive attitudes toward older adults. There is an increase in need of nurses with right attitudes, adequate knowledge of aging as well as skill to meet the demand of the aging population with the exposure to chronic diseases, physically functional decrease and increased dependency (Oyetunde, Ojo and Ojewale, 2013) (Eltantawy, 2013). The quality of care delivered and individual career preference are also affected by the attitudes of healthcare professional themselves (Liu, Norman and While, 2013).

So far, many research have been conducted to explore nurses' knowledge and attitudes toward older adults and their related factors revealed inconsistent findings. In addition, there has been limited research in this field in Vietnam and no research in Quang Tri province. Therefore, it is an essential step to identify the current situation for a better understanding and a basis background for improvement in the future. That was the reason why I investigated to identify the situation in a provincial general hospital in the urban area in Quang Tri in this study.

1.2. Research Purpose

The purpose of this study was to explore knowledge and attitudes toward older adults of nurses working at a general hospital at the provincial level of Quang Tri province, Vietnam. Specific aims were to:

1. Assess the level of knowledge of aging among nurses
2. Assess the level of attitudes toward older adults among nurses
3. Examine the differences in nurses' knowledge of aging by general characteristics; and
4. Examine the differences in nurses' attitudes toward older adults by general characteristics.

1.3. Scope of the Research

The study was conducted to assess the level of knowledge of aging and attitudes toward older adults among nurses who were working in Quang Tri General Hospital at the time of conducting the research as well as examining the differences in nurses' knowledge of aging and attitudes toward older adults by their general characteristics. The researcher was concerned with Quang Tri General Hospital because this is the only urban hospital and biggest general hospital at the provincial level in Quang Tri province where nearly one third of the total in-patients accessing health care services in this hospital were older adult patients. Other assessment on the nurses' skill performance would be beyond the study scope.

II. LITERATURE REVIEW

2.1. Overview of Older Adults and Situation of Older Adults in Vietnam

2.1.1. Overview of Older Adults

There are many different definitions of older adults. In the past, people often used the term elderly to refer to old age people, then the term elderly was used more and more up to 1995 the United Nations Committee on Economic Social and Culture Rights of Persons rejected the term “*elderly*” in preference for using another term “*Older persons*” (Social, 1995}. In an European survey about older adults' preferred term, the older respondents indicated that they preferred to use the term “*older*” or “*senior*” and strongly opposed the terms “*aged*”, “*old*”, and most strongly “*elderly*”. While “*elderly*” is more commonly used to describe frail individuals, “*older adult*” or “*older person*” then is considered to be “*respectful, precise, accurate, value-free and that older adults prefer makes a good sense and should be the standard term*” (Avers, 2011). Moreover, older adults are more diverse in comparison with other age group in the population, and are possibly more diverse in many ways due to their health, social roles, and other coping experiences throughout their lives. As the aging population becomes more and more ethnically diverse, the gap could even grow wider. It would be very misleading to refer to older adults as “*elderly*” for this term, which could be misrepresenting the great heterogeneity of this age group (Breytspraak et al., 2015).

Therefore, the terms *older*, *adults* or *older persons* will be used to refer to older population without any association to frail individuals and will be the terms used for purposes of this paper.

From a medical point of view: The older adults are people in the aging stage associated with a decline in body functions. Legally, the Law on Older Adults of Vietnam in 2009 stipulates: Older adults are “all Vietnamese citizens aged 60 years and over” (Law, 2009). According to the United Nations, the term “older adult” is a person aged 60 years and over (UN, 2015).

Some developed countries such as Germany, the United States stipulate those older adults are people aged 65 years or older. Regulations in each country vary because of the difference in age, there are signs of aging of people in different countries. Countries with good health care systems have improved life expectancy and people's health. Therefore, the manifestations of old age often come later. Therefore, the concept of older adults differs from country to country depending on the status of economic development and life expectancy at birth (WHO, 2017). Older adults are divided into 3 groups: 60-69 years old, 70-79 years old, and 80 years old and older (Forman et al., 1992).

2.1.2. Situation of Older Adults in Vietnam

Healthcare for older adults has been so far considered as a priority in Viet Nam. National government has issued several policies on older adult care has been issued and implemented: The Elderly Law 2009; The reformed Law of Health insurance 2014; Circular No. 35/2011/TT-BYT; Circular No. 10/2009/TT-BYT by the Ministry of Health

on providing guidance on performing health check-up and treatment for people with health insurance. In addition to this, Decision No. 1781/2012/QĐ-TTg covered National Action Program for Older Adults in 2012-2020 phase which aimed at the improvement of the quality of older adult care; promote social mobilization of healthcare activities; Health Care for Older Adults up to 2030 Program, with the objective “to meet older adults’ needs for health care to 2030 ensuring adaptation to aging population; (Decision No. 1579/QĐ-TTg by the Prime Minister: Approval on older adult health care program until 2030 to ensure population aging adaptation). Locally, Plan No. 110 on Older Adult Care Program up to 2030 issued on June 14, 2021 by Quang Tri Provincial People Committee with objectives to enhance quality of life of older adults via providing more comprehensive caring activities such as fully meeting the needs on medical examination and treatment for the elderly with increasing quality (at medical facilities, at home).

The Vietnam Law on the Elderly 2009 defined older adults are people aged 60 and above. There are three old age groups: the young-old (aged from 60 to 69), the middle-old (aged from 70 to 79) and the oldest-old (aged 80 and over). Population aging is not only happening in developed countries but also in developing countries at a rapid rate. It is a huge challenge for all areas: economic, political, social of a country. Vietnam is no exception to that trend.

According to the data of the General Department of Census in 2019, Vietnam had over 97 million inhabitants, ranking the 15 all over the world regarding the population rankings

of countries and territories (Danso.org, 2019). In particular, the group of older adults tends to increase. From 2009 to 2019, the older population increased from 8.68% to 11.86% of the total population. The aging population increased by 40% of the total population growth during this period. The average population growth rate was 1.14%, and the older population was 4.35%. Among the older population, the young-old (from 60 to 69) was the most populous with the highest growth rate, then came the oldest-old (those aged 80 and over). Vietnam has officially started the phase “population aging” since 2011. Vietnam became one of the countries with the fastest aging growth rate in the world. The older adults accounted for 11.9% of the total population in 2017, which meant that 1 in 9 people was 60 years of age or older. According to the forecast of the General Statistics Office, by 2038, The aging population will be over 21 million and will make up 20% of the total population (UNFPA, 2018). Vietnam was in the top 5 countries with the fastest growing population in the world. An aging population is a challenge for the country's economy and health care services and policies.

Previous studies found that Vietnamese older adults suffer from over 2 diseases in average among the most common ones including cardiovascular diseases, hypertension stroke, diabetes, cancer, asthma, arthritis, osteoporosis, and dementia, but they seek help from healthcare providers only when their conditions become serious (Phuc, et al 2018). A study conducted by Vu et al. showed that frailty was commonly found among older inpatients in Vietnam and frailty was significantly associated with their diseases regarding chronological age, poor nutrition status, low education and cardiovascular diseases (Vu et

al., 2017). The most common symptoms stated by older adults were high blood pressure (30%), muscular and skeletal disorders (10%) and respiratory disease (7.6%) (MoH, 2018).

The need of older adult care is big, but older adults' own conditions are still very limited, the income of older adults is very low, 70% of them do not have material savings, especially older adults in rural areas, villages and mountains. The need of older adult care is not just simple daily care such as nurturing and taking care of when sick, older adults also have a very high need for spiritual care. According to Nguyen Dinh Cu, mentally, 13% of older adults have difficulties, 60% find it normal, only 20% feel comfortable (Kiên, 2018). Therefore, the state, community and family are not only interested in the material life of older adults but also need to have specific jobs to ensure their spiritual life. At the same time, building a comprehensive health care model, ensuring that older adults receive better care.

Health care for older adults has been considered a top priority in Vietnam. A number of policies on older adult care have been promulgated and put into practice such as the National Action Program on older adults in Vietnam for the period 2012-2020 (issued under Decision No. TTg issued in 2012 [Vietnam Law and Legal Forum Decision No. 1781/QD-TTg: National Action Program on Older Adults in Vietnam 2012-2020.] which aimed at improving and developing the quality of care for older adults; Project on Older Adult Care for the period 2017-2025 (with the goal of "meeting the older adult care needs in line with the aging population, contributing to the implementation of the National Action Program on older adults in Vietnam).

2.2. Roles and Functions of Nurses for Older Adults

Florence Nightingale's definition about nursing in 1860 stated that "Nursing is the art of using the patient's environment to aid in their recovery". Today, Nursing is recognized as an independent profession, working together with doctors, pharmacists, technicians, and health system components to provide health care to individuals. individual, family, community and society, the nursing profession is called a nurse practitioner. According to Decision No. 41/2005/QĐ-BNV dated April 22, 2005 of Ministry of Home Affairs of Vietnam, nursing was defined as a professional and technical officer of the health sector who organizes to perform basic and technical nursing techniques. specialized nursing techniques in medical facilities.

Nursing care includes self-care or coordination of individuals at all ages, families, groups and communities, sick or well, and in all settings (including medical facilities). It includes education for health promotion, disease prevention, and care for the sick, the disabled, and the dying. Nursing care is also about protecting, promoting and optimizing health and abilities, preventing disease and injury, alleviating pain through the diagnosis and treatment of human disease, and mobility. individual, family, community and collective care. In addition, nursing care is also the process of building a safe environment, as well as the process of working and researching to provide evidence for the development of health policies and health management systems.

For patients, a nurse has the following five roles as a caretaker, an informant, a teacher, a consultant and an advocate for the sick. With the role of a caretaker, a nurse provide care

which is considered as the foundation of all nursing intervention as well as the core of nursing profession. Being an informant, a nurse ensures communications which regulates the relationship between patients and a nurse, between the nurse and colleagues as well as other medical staff. When playing the role of a teacher, a nurse performs four basic process similar to nursing process: identifying the learning needs of patients in the identification stage, setting the goals and teaching methods in planning stage, implementing teaching strategies in the implementation stage and then measuring patients' learning results at the evaluation stage. Acting as a consultant to help patients recognize and confront with psychological stress as well as social issues, to enhance interpersonal relationship and to facilitate individual development with emotional, intellectual and psychological support from nurses. Last but not least, being an advocate for the sick, a nurse promotes the best course of action for the patients, ensuring the needs of patients to be met.

With respect to functions of a nurse, there are independent functions and coordination functions. Independent function refers to the independence of a nurse in working from the outset and taking responsibility for their work such as monitoring and detecting symptoms and signs, accurately recording and reporting those findings, evaluating patient's needs and problems, guiding and helping to keep the patient clean and comfortable, educating the patient and family on prevention. Likewise, coordination functions are related to the relationship between the nurse and other employees to best accomplish their tasks. Thanks to the rhythmic coordination between the departments, it will contribute to reflecting the patient's progress, helping doctors to handle quickly and promptly when the patient's health

status becomes severe (oxygen breathing, artificial respiration, CPR, stop bleeding (hemostatic bandage), dressing the wounds etc.).

Professional duties of nurses are specified in Chapter II of the Circular No. 07/2011/TT-BYT on January 26, 2011 by Ministry of Health of Vietnam, including: (1) Counseling, health education guidance, (2) Mental care, (3) Personal hygiene care, (4) Nutritional care, (5) Rehabilitation care, (6) Care of patients with indications for surgery (7) Administering medication and monitoring medication administration, (8) Care for dying and dying patients, (9) Perform nursing techniques, (10) Patients monitoring and assessing, (11) Ensuring safety and preventing professional and technical errors in patient care, (12) keeping patients' medical records.

2.3. Roles of Nurses in Geriatric Care

Geriatric care was defined to encompasses any services necessary to assist older adults in living as independently. Cases ranged from basic help with transportation to complex medical care (Vijayreddy, 2018). Roles of a nurse in geriatric care include (1) Provision of complete or partial physical assistance or care of older persons in routine activities based on the need of each individual; (2) Provision of psychological care or assistance to make older adults express their own feelings and support older adults in a better way; (3) Provision of emotional support to old age peoples regarding their emotional factors, allowing them to express their feelings openly and listen to them properly. This gives older adults more strength; (4) Provision of medical care and assistance to old age peoples regarding management of minor ailments like partial vision loss, deafness, angriness,

anxiety, dementia, chronic diseases; (5) Assisting entertainment and exercise to older adults if it is important to keep them happy and redirect their mind in a positive way; (6) Provision of focused health screening, counseling, and comprehensive care to older adults; (7) Supporting older adults with crisis management; (8) Provision of care for diet; (9) Assisting with exercise regularly that helps OA to keep themselves physical and mental stability and healthy (Vijayreddy, 2018).

When the older population continues to increase and the need for specialized knowledge about older adult care become more critical in all health care settings. Most of the current users of the health care system are older adults, so nurses with their roles in geriatric care are more important to ensure the quality of older adult care. Nurses play an important role in advocating and directing appropriate use of resources as well as making necessary referrals to ensure continuity of care which meet the need of older adult care.

2.4. Nurses' Knowledge of Aging and Its Correlates

The knowledge of aging consists of general facts about the physical, social and mental health changes that occur as we age (Palmore, 1988). Aging is a natural process, and an inevitable phenomenon. However, the aging process takes place differently between individuals in a population, between organs and organ systems in an individual, not at the same speed and not simultaneously. There are very noticeable changes such as gray hair, wrinkled skin, hunchback. Aging is a process characterized by the gradual loss of tissue and organ function (Luriogi et al., 2018). However, there are many subtle changes that are

invisible to bare eyes. Understanding both the normal process of aging and aberrancies in aging is essential for caring older adults. Going through aging process, the process of physiological and psychological changes also has a lot of changes along with environmental and social interactions. Regarding physiological changes, almost all systems age with no exception including nerve system, cardiovascular system, digestive system, respiratory system, urinary system, five senses... Therefore older adults express a number of specific aging signs such as memory impairment (Khuê, 2013), high rate of urinary incontinence... Regarding psychological changes, older adults may feel lonely, turn to the past, or get angry, change from a positive state to a negative state. These problems make their mentality change a lot. The personality of older adults is a combination of basic psychological characteristics expressed through people's attitudes and behaviors towards themselves, people and things and with the surrounding living environment as a whole. Older adult care in mental health is very important, a relaxed and optimistic spirit can repel diseases (Khuê, 2013; Miller, 2012).

Previous studies showed that nurses and nursing students had different levels of knowledge of aging. Earlier results of a study conducted by Elebiary et al., (2018) in 300 nurses working in different health facilities indicated that nurses in general had relatively good levels of knowledge of aging and elderly people (Elebiary, 2018). Similarly, correspondent findings were found in other studies that measured the knowledge of nursing students (Bleijenberg, et al 2012, Oyetunde, et al 2013). Research by Kabátová et al., (2016)

found that the majority of survey nurses was excellent (14%) or very good (36%) or good (29%) at geriatric issues.

However, the research results done by Shih et al. which investigated over 450 nurses who worked in 12 different teaching hospital found that knowledge of aging among nurses as measured by Palmore's FAQ was low. (55.76%) (Shih, 2021). Nursing students' knowledge level of aging was also found relatively low in other studies. A research by Muhsin (2020) among 393 nursing students whose attitude toward older adults was positive but level of knowledge towards older adult care was poor, only 17% (69) of the respondents had a good level of knowledge of aging. Similarly, a study using FAQs for 385 nursing students by Ghimire et al. (2019) found that the average score for knowledge about older adults and aging was relatively low, with an average score of 26.9 out of 50. Commonly misidentified aging facts among respondents were depression (64%), Alzheimer's disease (65%), increased constipation (73%), decreased intelligence (78%), and decreased ability to learn new skills (79%), adaptation to a new environment (80%), personality changes (83%), and loss of interest/ability in sexual activity (88%) (Ghimire, 2019). Besides, the results of a research on 596 students from the faculty of nursing - Mansoura University found that there was a lack of knowledge of aging (Eltantawy, 2013)

Nurses' greater knowledge of aging was shown to promote positive attitudes for caring older adults. There were factors found to be significantly associated with nursing students' level of knowledge including living in extended families and and with older persons at home (Muhsin, 2020), current nursing program that the study sample was studying

(Ghimire, 2019), age ($p = .009$), length of working ($p = .017$), and education ($p = .007$) of the nurses (Kabátová, 2016). Likewise, in other studies, variables like age, religion, family type, years of current nursing education, exposure to geriatric practical were not significantly found to be associated with knowledge of aging (Ghimire, 2019).

2.5. Nurses' Attitudes Toward Older Adults and Its Correlates

Attitude is the expression of beliefs, feelings, and experiences about an object or concept, reflected through cognition and affection, and influence one's behaviors. It is a tendency to react favorably or unfavorably to an object, person, or event (Ajzen I., 2005). Negative attitude toward aging was associated with low quality of care and affected the quality of life of older adults (Lee, Wong and Loh, 2006). Therefore, it is becoming important to understand nurses' attitudes toward older adults and their attitudes toward working with older patients (Liu, Norman and While, 2013).

Older adult care is increasingly interested in many countries. The care for older adults has improved largely due to medical developments and working attitudes of health workers, especially nurses. A nurse is a key member, an important link in the process of taking care of the health of the elderly and in elderly health care, attitude can affect to the right or wrong care to the older patients. This issue is also found in a study by (Eltantawy, 2013).

As a result of investigating nurses' attitudes toward older adults in previous studies, it was found that conflicting opinions coexisted. A systematic integrative review of eight articles selected out of 67 read in-dept papers by Ruth et al. (2017) found that nurses had co-existing positive as well as negative attitudes toward general and specific aspect of older

adult care. (Rush et al., 2017). In a study in China, registered nurses had a positive attitude toward older adults (Lan, Chen and Yi, 2019). Nurses in America and Africa in a study by Lookinland et al. (2002) were found to hold positive attitude toward older adults; Similarly, nurses' attitudes toward the elderly were found to be generally positive (Kang, Moyle and Venturato, 2011).

Recent studies showed that the quality of older adult care was endangered by prejudice and discrimination against older adults (Faronbi et al., 2017). 54.3% out of 230 nurses who worked at public hospitals in Iran had negative attitudes toward older adults. In another study, healthcare workers were reported to be less enthusiastic in providing nursing care for older adults in their nursing practice (Kydd et. al., 2013). Numerous studies on nurses' attitudes toward older adults also found that negative attitudes reflecting prejudice toward older adults had a significant effect on nurses' nursing activities and the quality of care for older adults.

Significantly, Liu et al. (2013) reported that nursing students' attitudes toward older adults were not consistent with the attitudes seen among registered nurses and undergraduate students and less positive attitude was seen since 2000 (Liu, Norman and While, 2013). Nurses' negative attitudes toward older adults were shown to affect nursing quality, such as reducing independence and decision-making ability in older adults (Courtney, Tong and Walsh, 2000).

Research findings showed that nurses' attitudes towards the elderly were influenced by a number of factors. Numerous factors could influence a nurse's attitude toward the elderly,

including close relationships with older relatives, experience caring for older adults, and living with older family members (Cheng et al., 2015), cultural context (Xiao, Shen and Paterson, 2013), *age* (Iwasaki and Jones, 2008); (Shen and Xiao, 2012), *gender* (Iwasaki and Jones, 2008; Liu, Norman and While, 2013; Mansouri Arani et al., 2017), but Hannan (2015) reported among most of the respondents (93.3%) showed negative attitudes toward older adults, majority of them were female (86.6%)(Hanan, 2015), marital status (Mansouri Arani et al., 2017); *Type of family* (Shrestha et al., 2020); *Education level* (Doherty, Mitchell and O'Neill, 2011; Iwasaki and Jones, 2008).

Moreover, Doherty, Mitchell, and O'Neill (2011) found that the majority of older adults (63%) expressed unmet health needs due to nurses' negative attitudes toward them (Doherty, Mitchell and O'Neill, 2011). *Area of practice* (working wards and departments) (Mansouri Arani et al., 2017) was shown to have a significant difference with the attitudes to ward older adults among nurses working in internal and surgical wards. The study found that nurses working in the internal ward had higher attitude scores than nurses working in the surgical ward. Furthermore, nurses working in psychiatric departments had higher attitude scores towards elderly patients than those working in pediatric and surgical departments. (Iwasaki and Jones, 2008). Additionally, two-thirds of the nurse participants who worked in medical/internal wards were found to significantly perform more positive attitudes than those working in surgical ward (Kang, Moyle and Venturato, 2011).

Many studies found that healthcare workers' negative attitudes towards older adults were influenced by their personal values, beliefs, culture or experiences. Furthermore, it

appeared that age, gender, education level, longer living time or spending with older adults, and areas of practice could directly influence the improvement of nurses' attitudes towards adults (Koh, 2012; Kavlak et al., 2015).

However, at present, studies on nursing attitudes towards older adults in Vietnam are still limited, and there has been no research in this field in Quang Tri province so far. For these reasons, the researcher conducted this study on the knowledge of aging and attitudes toward older adults of nurses working in a general hospital at the provincial level, Vietnam.

III. METHODS

3.1. Research Design

This study included a design of a quantitative cross-sectional study based on an online survey of nurses in Vietnam.

3.2. Sample and Setting

3.2.1. Setting

This study was conducted in the Quang Tri – a rural province in the central of Vietnam (Figure 2). Quang Tri General Hospital is the only provincial general hospital in the urban area with the biggest service capacity. There were 312 nurses out of 777 nurses working in 13 district (10) and provincial (3) general hospitals. All nurses were chosen and represented for nurses working in a general hospital at the provincial level in an urban area. There is a geriatric ward which was founded in 2019 in order to meet the increasing demand in geriatric care of an aging population.



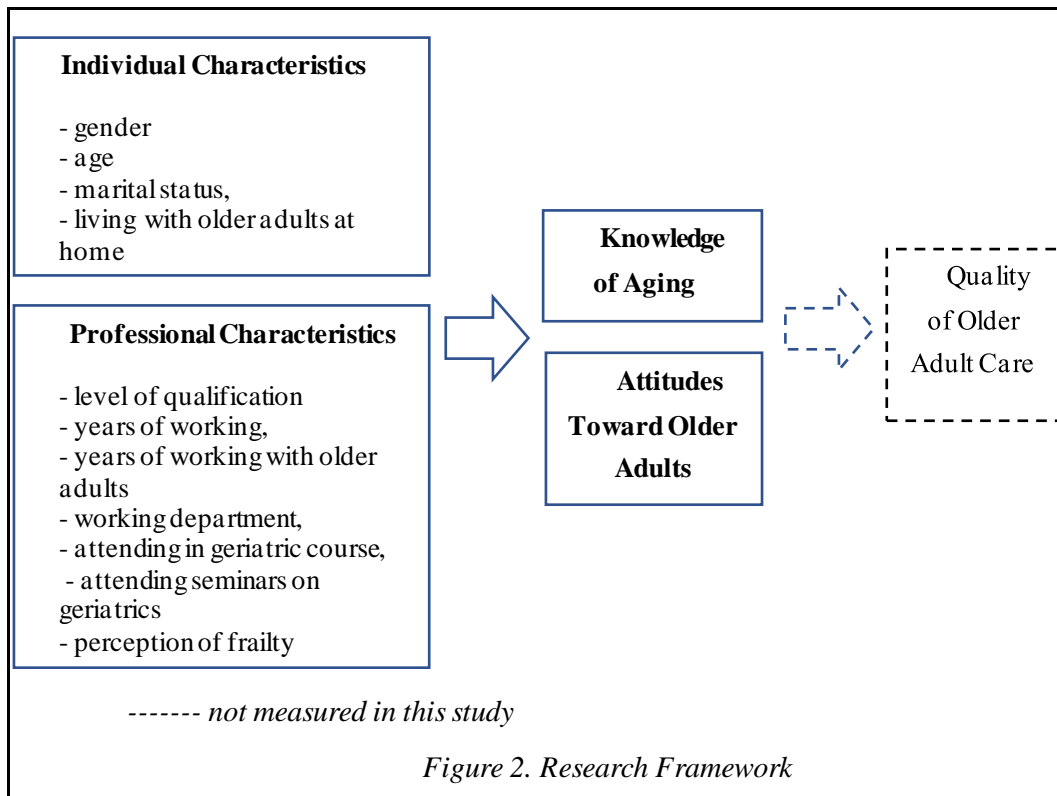
Figure 1. The Map of Viet Nam

<http://www.maps-of-the-world.net/maps/maps-of-asia/maps-of-vietnam/large-administrative-divisions-map-of-vietnam-1992>.

3.2.2. Inclusion and Exclusion Criteria

General nurses working in all wards and departments at Quang Tri General Hospital were recruited to voluntarily participate in an online survey for this study. The criteria for selecting and excluding nurses to participate in the survey were as follows:

- *Inclusion criteria of the target population:* Nurses who were working in a clinical ward and departments and nurses who were willing and signed in a consent form to participate voluntarily were included in the study.
- *Exclusion criteria of the target population:* Nurses who had been working in pediatric ward or nurses who were not willing to participate voluntarily and had not signed in the consent form were excluded from the study.



3.2.3. Study Sample Size

Convenience sampling was used as the sampling technique for this study. There were 290 nurses working clinical wards and departments except for pediatric ward where there had been no nursing rotation at Quang Tri General Hospital, and all of them were the target sample for the research. The power calculations obtained from the *G-Power* software showed that the desired sample size needed to achieve a power of .90 with a test alpha level .05 was 232 for a minimum detectable effect size (f) of .25 standard deviations, using one-way ANOVA with 4 groups (Faul, 2009 #151}. The final sample size of this study

was 242 after accounting for non-response rates of 5%, which was ensured a minimum detectable effect size between small and moderate effect sizes.

After cleaning of data and 240 responses returned were appropriate for inclusion in this study.

3.3. Research Tools

An online self-reported questionnaire with 92 survey questions covered three parts: Knowledge of aging, Attitudes of older people, and general characteristics.

The translation process followed the guidelines of the Cross-Cultural Adaptation of Self-Report Measures (Beaton et al., 2000), the questionnaire was first translated from English into Vietnamese and then translated into Vietnamese by a translator who didn't know the original English question items. The reverse-translated questionnaire was compared with the original English version by the researcher. Then a review meeting was organized to evaluate the use of Vietnamese in the translated version by experts in the field. 3 items out of 50 original items were omitted which consist of 1 item (No.34) overlapped in The Kogan's Attitudes toward Older People Scale and other two items (No. 26 and 29) after reviewing with experts in the field for the appropriateness in the context of Vietnam. Then final Vietnamese version was established.

In order to check the clarity and cultural appropriateness of the survey tools as well as to determine how much time needed to fill the survey and check whether the information collected could be analysed, a link for google survey was first sent to 2 nurses working in administration department of Quang Tri General Hospital and other 3 nursing instructors

who were working at Quang Tri Medical College. There was no changes made to the survey tools but only the time was set for the survey done was up to 30 minutes.

3.3.1. Knowledge of Aging

Nurses' knowledge of aging was measured by Palmore's Fact of Aging Quiz (FAQ) (Breytspraak, L. & Badura, L., 2015). This tool was originally developed to assess the basic knowledge of older adults by asking factual statements about the physical, psychological, social, and economic factors associated with aging and some common misconceptions about aging (Palmore, 1977). It consist of 47 items with True/False. For items measuring knowledge of aging, the respondents chose True or False for each statement. Each correct answer was scored one; Total range score was 47 for all correct answers. Level of knowledge was determined in accordance with three levels: low (0-17 points), average (18-35 points) and high (36-47) (Milutinovic, 2015). The higher score the respondent could have indicates the better knowledge of aging. The reliability of Cronbach's alpha value was 0.70 in previous research. The Vietnamese version of the FAQ was found Cronbach's alpha at 0.826 in this study.

3.3.2. Attitudes toward Older People

Attitudes toward older adults was measured by the Kogan's *Attitudes Toward Older People Scale (KAOP)*. KAOP was translated into Vietnamese according to the translation guidelines of Beaton (2000) mentioned above. KAOP is a 34-item self-report tool consisting of 17 positive and 17 negative statements measuring attitudes towards older

adults (Kogan, 1961b). Kogan's scale is the most commonly used tool in the literature (Baker, 2005; Liu, 2012). The quantitative scale of attitudes used six-point Likert scale of 1 (strongly disagree), 2 (disagree), 3 (slightly disagree), 4 (slightly disagree), 4 (slightly disagree), 5 (agree), and 6 (strongly agree). Specific values were assigned to all sentences so that the positive attitudes of the negative attitudes did not decrease. 17 items with negative wording were scored reverse. Scores ranged from 34 to 204, with three levels of attitudes toward older adults: negative attitudes (34-101), neutral (102-136) and positive (137-204). The higher the total score was calculated, the more positive the attitude was indicated. Previous studies of reliability have shown that Cronbach's alpha values for this test ranged from 0.70 to 0.82. (Neville, 2015) (Neville, 2015), .66 to .70 for the total scale, .65 to .72 for the positive scale, and .66 to .72 for the negative scale (Runkawatt et al., 2016). Testing the reliability among nurses in Vietnam, the Cronbach's alpha was .942 in this study.

3.3.3. General Characteristics

The personal and professional characteristics cover 11 items. Personal characteristics included gender, age, marital status, living with older adults at home. Professional characteristics included level of nursing education, years of working at the hospital, years of working with older adults, current working ward type, studied in geriatrics, attended workshops or seminars regarding older adult care, perception of frailty.

3.4. Data Collection

The researcher contacted the Hospital Director Board and the Hospital Scientific Council Board for approval of this study and conducting an online survey on nurses. After getting Severance Ethic Committee's IRB approval, the researcher sent information to recruit target population for the research. Research subjects accessed the recruitment information on the hospital bulletin board. Any nurses who met study inclusion criteria and decided to participate in the research, could access a QR code to provide their full names and email addresses. Then, the researcher sent the research description in which the aims of the survey as well as the significance of the data to be collected, the confidentiality of information as well as the voluntary spirit of the participants would be clearly stated and an attached consent form to their emails provided. After getting the information about the research and research subjects who agreed to join would send the picture or scanned file of the signed consent form back to the researcher. The researcher then sent a link to access to a 30-minute online survey form to the participants who already submitted their signed consent forms.

3.5. Data Analysis

All data collected via google forms were cleaned in an excel file. The data were cleaned and coded then analyzed using SPSS 25.0 software. Descriptive statistical methods were used to describe for demographic details of participants. FAQ scales, and KAOP measures such as frequencies (percentages) for categorical variables and mean \pm SD for continuous variables. Through independent sample t-test and one-way ANOVA, the level of

significant comparison between subjects' knowledge mean, attitude score, and general characteristic variables was investigated. Chi square test of association were also made between general characteristics and variables that were associated with knowledge of aging as well as those that were associated with attitudes toward older adults. The test of association that was detected to be significant at alpha level of 0.05 was reported for this study. In addition, Pearson's correlation was used to determine the relationship between total knowledge and total attitude scores; For all statistical tests, two-tailed tests with 0.05 significance level were considered significant.

3.6. Ethics in Research

The study was conducted with the IRB approval (No. (# 4-2021-1325) granted by Severance Ethic Committee and with official verbal approval of the Scientific Council of Quang Tri Provincial General Hospital. Nurses voluntarily participated and filled a self-reported questionnaire after knowing the research information as well as reading recruitment document on the hospital bulletin board. There was no risk factors to respondents. They were given a coupon equivalent to 5,000 won after finishing the survey as a compensation for their time and efforts. The only discomfort that occurred to the respondents was the matter of time consuming of less than half an hour. Survey questionnaire items were related to the respondents' own perceptions of aging process and their attitudes towards older adults for a general assessment of nurses. Their answers did not affect to any of their job-related assessment or promotion by their own organization. Collected personal information was used only for the purpose of this study, and would not

be used for any purpose other than the purpose of data collection. If in case published in an article, all the subject's personal information will not be used and will be confidentially managed.

IV. RESULTS

4. 1. General Characteristics of Study Subjects

In this study, the sample consisted of 240 nurse. The respondents' age ranged from 22 to 53, with an average of 32.53 years (± 6.81 years). Most of the respondents were under 31 years old. Table 1 presents the individual and professional characteristics (general characteristics) of the respondents. As reflected in the table, most of the study population were female, accounting for 91.3%, only 8.7% of the study population is male. The majority (80.4%) of nurses were married, 19.6% of them were single or divorced. About 51.7% of the respondents had experience living with older adults. Regarding level of nursing education, majority of the respondents were at junior college (3-year program), accounting 70% for the most among the nurses. In the second place is university (4-year program) nurses accounting for 22.1%, then, junior college (2-year program) group accounted for the lowest rate of 7.9%. All the surveyed nurses were working at 16 clinical wards and departments at the time of study. Among which, the most populous wards were resuscitation ward, medical ward and surgical ward which accounted for 22.5%, 21.7% and 19.2% % of total respondents working in each ward respectively (Table 1).

The average number of working years of nurses was 9.29 (± 6.79), in which, the working years of 31 was the highest and .8 year (less than one year) was the lowest. The majority of nurses had from 5 to 15 years of working accounting for 58.8%, and only 14.5% nurses who have less than 15 years of working. Regarding the experience of working with older adults, 50.4% of the respondents had experience working with older adults from 5

years up to 15 years. 39.2% of nurses had less than 5 years among those there was 6.7% who had no experience in this field. Among the respondents, 45% of them did not have a course on geriatrics during their nursing program, and 77.1% did not join any workshops or seminars regarding geriatric care while working a nurse in the hospital (Table 1).

Table 1: Summary of Individual and Professional Characteristics of Respondents

N=240

Variables	Categories	Frequency	Percent	Mean±SD
Gender	Male	21	8.7	
	Female	219	91.3	
Age (Years)	< 31	126	52.5	32.25±6.81
	31 – 40	87	36.3	
	> 41	27	11.3	
Marital status	Single	46	19.2	
	Married	193	80.4	
	Divorced	1	.4	
Living with older adults	Yes	124	51.7	
	No	116	48.3	
Level of qualification	Junior College (3 years)	168	70.0	
	University (4 years)	53	22.1	
	Junior College (2 years)	19	7.9	
Working department	Resuscitation Department	54	22.5	
	Internal	52	21.7	
	Surgical	46	19.2	
	Oncology	21	8.8	
	Examination	17	7.1	
	Geriatrics	15	6.3	
	Others	35	14.6	
Number of years working as a nurse	< 5 years	72	30	9.29±6.8
	5 – 15 years	133	55.4	
	> 15 years	35	14.6	
Number of working years with older adults	< 5 years	94	39.2	7.88±6.35
	5 – 15 years	121	50.4	
	> 15 years	25	10.4	
Attending geriatric courses	Yes	132	55.0	
	No	108	45.0	
Attending seminars on geriatrics	Yes	55	22.9	
	No	185	77.1	

4. 2. Knowledge of Aging Among Nurses

The average knowledge of aging was 27.07(+ 3.11) among the 240 respondents with a standard deviation of 3.12. Most of the nurses (51.7%) had lower score than mean. The lowest knowledge score was 18 and highest score is 35. Majority of the respondents had a score of 28. As shown in Table 2, compared to the ranges of level of knowledge, 100% of the study population was at average level of knowledge and no one had high level of knowledge or low level of knowledge.

Table 3 describes all 47 question items of facts of aging with correct responses by the nurses. The respondents correctly answered the following facts as normal and inevitable issues for older adults including declining in physical strength (100%), increasing reaction time (99.2%), suffering more sleeping troubles (98.8%), considering geriatrics as a specialty in Vietnamese medicine (97.5%), longer recovery from physical and psychological stress (97.1%), a decline of five senses (96.3%). Meanwhile there were facts incorrectly answered by more than 90% respondents in the following items: changes in personalities (95.8%), being unable to be well adaptable (91.2%), loss in sexual interest and capacity (90.4%).

Table 2: Level of Knowledge of Aging

N=240

Variables	Frequency	Percent	Mean+SD
Knowledge of Aging (Range)			
Low (0-17)	0	0	27.07±3.11
Average (18-35)	240	100	
High (36-47)	0	0	

Table 3: Description of Nurses' Knowledge of Aging

N=240

No.	Facts of Aging	Correct Responses	
		n	%
1.	Physical strength declines in old age	240	100.0
2.	High blood pressure increases with age *	240	100.0
3.	As adults grow older, reaction time increases	238	99.2
4.	Older adults have more trouble sleeping than younger adults do	237	98.8
5.	Geriatrics is a specialty in Vietnamese medicine	234	97.5
6.	Older persons take longer to recover from physical and psychological stress	233	97.1
7.	All five senses tend to decline with age	231	96.3
8.	Older people are much happier if they are allowed to disengage from society	221	92.1
9.	Memory loss is a normal part of aging.	219	91.3
10.	A person's height tends to decline in old age	218	90.8
11.	The modern family no longer takes care of its elderly	205	85.4
12.	Older people tend to become more spiritual as they grow older	203	84.6
13.	Older females exhibit better health care practices than older males	200	83.3
14.	Participation in volunteering through organizations (e.g., pagodas, churches and clubs) tends to decline among older adults	192	80.0
15.	Older adults (60+) have higher rates of criminal victimization than adults under 60 do	189	78.8
16.	Kidney function is not affected by age	180	75.0
17.	Retirement is often detrimental to health--i.e., people frequently seem to become ill or die soon after retirement	178	74.2
18.	The majority of old people (past 60 years) have Alzheimer's disease	173	72.1
19.	The life expectancy of men at age 60 is about the same as that of women	172	71.7
20.	Alcoholism and alcohol abuse are significantly greater problems in the adult population over age 60 than that under age 60	169	70.4
21.	Abuse of older adults is not a significant problem in the Vietnam	163	67.9
22.	The majority of old people are bored	155	64.6
23.	As people live longer, they face fewer acute conditions and more chronic health conditions	154	64.2
24.	Clinical depression occurs more frequently in older than younger people.	146	60.8
25.	Grandparents today take less responsibility for rearing grandchildren than ever before	143	59.6
26.	Living below or near the poverty level is no longer a significant problem for most older Vietnamese	140	58.3

27.	Older adults have the highest suicide rate of any age group	137	57.1
28.	Bladder capacity decreases with age, which leads to frequent urination	131	54.6
29.	In general, most old people are pretty much alike	124	51.7
30.	Social Security benefits automatically increase with inflation	112	46.7
31.	People 60 years of age and older currently make up about 20% of the Vietnamese population	108	45.0
32.	Older adults (60+) are more fearful of crime than are persons under 60	90	37.5
33.	As people grow older, their intelligence declines significantly	85	35.4
34.	It is very difficult for older adults to learn new things.	78	32.5
35.	All women develop osteoporosis as they age	74	30.8
36.	Most older adults consider their health to be good or excellent	60	25.0
37.	Older workers cannot work as effectively as younger workers	55	22.9
38.	Older people perspire less, so they are more likely to suffer from hyperthermia	52	21.7
39.	Increased problems with constipation represent a normal change as people get older	50	20.8
40.	Research has shown that old age truly begins at 60	47	19.6
41.	Older adults are less anxious about death than are younger and middle-aged adults	46	19.2
42.	Most older drivers are quite capable of safely operating a motor vehicle	45	18.8
43.	All medical schools now require students to take courses in geriatrics and gerontology	41	17.1
44.	Older adults are at risk for HIV/AIDS	38	15.8
45.	Most old people lose interest in and capacity for sexual relations	23	9.6
46.	Older people do not adapt as well as younger age groups when they relocate to a new environment	21	8.8
47.	Personality changes with age.	10	4.2

*Correct answer for both True (209, 87.1%) and False (31, 12.9%)

4. 3. Attitudes Toward Older Adults Among Nurses

The results of attitudes toward older adults among nurses working in Quang Tri General Hospital are presented in Table 4 below. Most of the study sample (93.8%) had neutral attitude toward older adults, very low number of the respondents 13(5.4%) had positive attitude, and 2 (0.8%) respondents had negative attitude toward older adults. The total mean score was 121.43(± 8.5), the lowest was 96 and the highest was 146, among which the mean score of the 17 positive items (KAOP+) was 62.13(± 12.43) and that of negative items (KAOP-) was 59.29 (± 13.77). Specifically, the variable with the highest mean score was a positive item “*It is nice when older adults speak about their past*” (4.62 ± 1.10). Interestingly, “*Older adults have a negative influence on a neighborhood*” was the negative item that had the most positive attitude among the nurses (4.54 ± 1.27) and the lowest mean score was a positive item “*Older adults need no more love than others*” (2.41 ± 1.34) with the 6 Likert-scale from 1 to 6. For all negative items was computed opposite scores together with positive items which made the higher total scores the better attitudes toward older adults (Table 5)

Table 4: Attitudes toward Older Adults

				N=240
Variables		Frequency	Percent	Mean+SD
Attitudes toward older adults (Range)				
Negative	(34-101)	2	0.8	121.43 + 8.5
Neutral	(102-136)	225	93.8	
Positive	(137-204)	13	5.4	

Table 5: Description of Nurses' Attitudes Toward Older Adults

N=240

No.	Variables	Mean/SD
Negative attitude		
12N	Older adults have a negative influence on a neighborhood.	4.54(1.27)
14N	Older adults are untidy.	3.96(1.28)
5N	Older adults have shabby homes.	3.87(1.42)
7N	Older adults have too much influence in society.	3.78(1.29)
9N	Older adults bore others with their stories.	3.75(1.25)
8N	Older adults make others feel ill at ease.	3.74(1.27)
15N	Older adults are irritable, grouchy and unpleasant.	3.73(1.32)
6N	Wisdom does not come with advancing a ge.	3.65(1.28)
17N	Older adults have excessive demands for love.	3.58(1.22)
13N	Older adults are much alike.	3.57(1.30)
10N	Older adults are always prying into the affairs of others.	3.48(1.21)
4N	Older adults quit work when they become pensioners.	3.22(1.37)
11N	Older adults have irritating faults.	3.04(1.23)
16N	Older adults complain about the young.	3.01(1.18)
2N	Older adults are different.	2.96(1.21)
3N	Older adults are unable to change.	2.79(1.19)
Negative attitude		
9P	It is nice when older adults speak about their past.	4.62(1.10)
11P	Older adults have the same faults as the young.	4.53(1.12)
5P	Older adults are able to maintain a clean, attractive home	4.41(1.13)
4P	Older adults prefer to to work than to be dependent.	4.36(1.20)
6P	Older adults have more wisdom with a ging	3.73(1.26)
8P	Older adults are relaxing to be with.	3.68(1.02)
3P	Older adults are capable of new adjustment.	3.66(1.21)
15P	Older adults are cheerful, a greeable and good-humored.	3.64(1.17)
14P	Older adults are clean and neat.	3.64(1.15)
12P	Neighborhoods are nice when integrated with older adults.	3.61(1.27)
13P	Older adults are different from one another	3.61(1.23)
1P	Older adults should live integrated with the young.	3.59(1.18)
10P	Older adults mind their own business.	3.55(1.34)
2P	Older adults are no different from anyone else.	3.25(1.37)

16P	Older adults seldom complain about the young.	2.93(1.16)
7P	Older adults should have more power in business and politics.	2.91(1.22)
17P	Older adults need no more love than others.	2.41(1.34)

**KAOP score: categorized based on the study by Doherty et al., (2011)*

4.4. Differences of Knowledge of Aging by General Characteristics

Differences between individual and professional characteristics and overall knowledge scores of aging among nurses were compared using an independent t-test or ANOVA test. Gender, age, marital status, level of nursing education, working department, number of working years were found to have no significant effect on total scores of knowledge of aging. However, the results showed that perception of frailty had a significant effect on the total score of knowledge of aging ($p < 0.05$). (Table 6)

Table 6: Differences in Overall Knowledge by General Characteristic Variables

N=240

Variables	Categories	n(%)	Mean(SD)	t/f(df)	p
Gender	Male	21(8.7)	27(2.3)	-0.109	.913
	Female	219(91.3)	27.1(3.2)		
Age	<31	126(52.5)	27.25	0.568	.567
	31-41	87(36.3)	26.97		
	>41	27(11.3)	26.59		
Marital status	Single	46(19.2)	27.76	1.678	.095
	Married	193(80.4)	26.91		
	Divorced	1(0.4)	27.00		
Nursing Education	University(4 years)	53(22.1)	26.75	0.376	.687
	Junior College (3 years)	168(70)	27.14		
	Junior College (2 years)	19(7.9)	27.32		
Working department	Resuscitation Department	54(22.5)	27.39	0.514	.798
	Internal	52(21.7)	26.73		
	Surgical	46(19.2)	27.13		
	Oncology	21(8.8)	27.29		
	Examination	17(7.1)	27.88		
	Geriatric	15(6.3)	26.80		
	Others	35(14.6)	26.67		
Years of working	<5 years	72(30)	27.43	0.962	.384
	5-15 years	133(55.4)	27.01		
	>15 years	35(14.6)	26.57		
Years of working with older adults	<5 years	94(39.2)	27.27	0.448	.639
	5-15 years	121(50.4)	27.01		
	>15 years	25(10.4)	26.64		
Living with older adults	No	116(48.3)	27.30	1.114	.266
	Yes	124(51.7)	26.85		
Attending geriatric course	No	108(45)	26.97	-0.444	.657
	Yes	132(55)	27.15		
Attending seminars	No	185(77.1)	27.19	1.083	.280
	Yes	55(22.9)	26.67		
Perception of frailty	False	120(50)	27.57	2.499	.013
	True	120(50)	26.58		

4.5. Differences of Attitude Toward Older Adults by General Characteristics

The mean score of KAOP, KAOP+, and KAOP- scores were compared among nurses by individual and professional characteristics using an independent t-test and ANOVA test. The results showed gender, age, marital status, level of nursing education, working department, number of working years had no significant effect on total scores of KAOP, KAOP- nor KAOP+. Only perception of frailty had a significant effect on KAOP- ($p = .005$) but not statistically significant on total KAOP nor KAOP+ ($p = .084$ and $.051$) respectively (Table 7)

Table 7: Differences of Attitude Toward Older Adults by General Characteristics

N=240

Variable	Categories	Total KAOP				KAOP-			KAOP+		
		n(%)	Mean(SD)	t/f(df)	p	Mean(SD)	t/f(df)	p	Mean(SD)	t/f(df)	p
Gender	Male	21(8.7)	120.29(8.02)	-0.646	.519	60.33(14.46)	0.362	.717	59.95(14.85)	-0.841	.401
	Female	219(91.3)	121.53(8.5)			59.19(13.73)			62.34(12.19)		
Age	<31	126(52.5)	121.44	0.226	.798	59.44	0.244	.784	61.99	0.745	.476
	31-41	87(36.3)	121.11			59.61			61.51		
	>41	27(11.3)	122.37			57.56			64.81		
Marital status	Single	46(19.2)	122.46(9.8)	0.966	.335	60.09(11.3)	0.429	.668	62.4(9.7)	0.178	.859
	Married	193(80.4)	121.12(8.0)			59.11(14.4)			62(13)		
	Divorced	1(0.4)	121.00			59.00			62.00		
Living with adults	No	116(48.3)	121.69(9.2)	0.468	.640	59.52(13.7)	0.245	.807	62.2(11.5)	0.047	.963
	Yes	124(51.7)	121.18(7.7)			59.08(13.9)			62.1(13.3)		
Nursing education	University (4 years)	53(22.1)	121.96	0.140	.870	59.89	0.535	.587	61.80	0.640	.528
	Junior college (3 years)	168(70)	121.26			59.45			62.08		
	Junior college (2 years)	19(7.9)	121.42			56.21			65.21		
Working department	Resuscitation Department	54(22.5)	122.89	1.148	.336	59.74	1.529	.169	63.15	1.298	.259
	Internal	52(21.7)	120.96			59.02			61.94		
	Surgical	46(19.2)	122.13			63.80			58.33		
	Oncology	21(8.8)	121.86			56.48			65.38		

	Examination	17(7.1)	121.76			60.12			61.65		
	Geriatric	15(6.3)	121.93			55.73			66.20		
	Others	35(14.6)	118.24			55.79			62.45		
Years of working	<5	72(30)	121.63	0.175	.840	58.81	0.068	.935	62.82	0.192	.826
	5-15	133(55.4)	121.16			59.45			61.71		
	>15	35(14.6)	122.03			59.69			62.34		
Years of working with older adults	<5	94(39.2)	121.07	0.132	.876	58.82	0.326	.722	62.26	0.313	.732
	5-15	121(50.4)	121.60			59.24			62.42		
	>15	25(10.4)	121.66			61.32			60.28		
Attending geriatric courses	No	108(45)	121.54(8.9)	0.185	.853	60.33(13.6)	1.061	.290	61.2(12.7)	-1.048	.296
	Yes		121.33(8.2)			58.44(13.9)			62.9(12.2)		
		132(55)									
Attending Seminars on Geriatrics	No		121.11(8.1)	-	.288	58.64(13.3)	-1.352	.178	62.5(12.1)	0.769	.442
	Yes	185(77.1)	122.49(9.6)	1.066		61.49(15.1)			61(13.6)		
		55(22.9)									
Perception of Frailty	False	120(50)	122.37(9.1)	1.733	.084	61.8(13.1)	2.865	.005	60.6(11)	-1.964	.051
	True	120(50)	120.48(7.7)			56.78(14)			63.7(13.6)		

4.6. The Relationship Between Nurses' Knowledge of Aging and Attitudes Towards Older Adults

The result of the *Pearson* correlation showed that there was significant positive relationship between the knowledge of aging and attitudes of nurses towards older adults. The correlation was that the higher knowledge of aging the respondents had, the more positive attitudes they held.

Table 8: Correlation between the knowledge of aging and attitudes toward older adults

N=240

Variables	Knowledge of Aging	Attitudes toward Older Adults
	1.000	
Knowledge of aging		
	.267	1.000
Attitudes toward older adults	p < .001	

V. DISCUSSION

The purpose of this study was to investigate the knowledge of aging and attitudes toward older adults of nurses working at Quang Tri General Hospital, and to identify the differences between nurses' knowledge of aging and attitudes toward older adults by their general characteristics. The findings in this study will be used as a basic information for designing and developing courses for nursing working in general hospitals in the field of geriatric nursing. The study main findings, limitations and suggestions are presented as follows:

Most of the nurses participating in the study were under 31 years old among the age range from 22 to 53 years old. Among them, 219 (91.3%) of nurses were female and most of the respondents (80.4%) were married. Regarding living with older adults, about 51.7% of the respondents had the experience. Most of the nurses (92.1%) had junior college level of nursing education with 3-year program or university (4-year program). All the nurses were distributed working in 16 different clinical wards. The most populous respondents were in resuscitation department, medical and surgical wards which accounted for 22.5, 21.7 and 19.2% respectively. .

The average number of working years of the surveyed nurses is 9.29 (± 6.79), in which, the majority of nurses had from 5 to 15 years of working accounting for 58.8%, and 50.4% of them had experience working with older adults from 5 years up to 15 years (54.1%). 39.2% of nurses had less than 5 years among those there was 6.7% who had no experience in this field. Besides, 45% of them did not have a course on geriatrics before. Most of the

respondents (77.1%) did not join any workshops or seminars regarding geriatric care while working a nurse in the hospital nursing program. Half of the respondents had correct perception of frailty.

5.1. Nurses' Knowledge of Aging by General Characteristics

The average of knowledge of aging was 27.07 among 240 respondents with the standard deviation is 3.12. The lowest score is 18 and highest score is 35. Majority of the score is 28. Compared to the ranges of level of knowledge, 100% respondents were found to have neutral level knowledge of aging. Studies that used FAQs to measure knowledge of aging among diverse groups of participants consistently found that knowledge of aging was surprisingly poor, as most participants performed around pure opportunity (Palmore, 1998), low knowledge among nurses (Shih et al, 2021), Muhsin (2020), Ghimire et al., (2019), (Eltantawy, 2013)

Supported this finding, neutral knowledge was also found in a study by Elebiary (2018), Bleijenberg, et al (2012), Oyetunde, et al (2013). This study finding was similar to a research conducted by Milutinović D, et al. (2015) in which FAQ's total mean score for experimental group was 30.52 (± 3.61), and among control group was 29.07 (± 3.26). This result indicated the average knowledge of aging among the study population (Milutinovic, 2015).

Specifically, the findings of this study indicated that the highest knowledge score of knowledge about aging, was correctly perceived with the facts that "*Physical strength declines in old age*" and "*High blood pressure increases with age*" (100%) longer reaction

time (99.2%), Besides, a total of 232 (96.3%) of the 240 respondents perceived that the “five senses (*sight, hearing, touch, smell and taste*) have tendency to weaken with aging”. This sensory impairment was described in the United States by Correia et al. (2016) using 1301 adults between the ages of 57 and 85, which showed majority of them (74%) had a taste impairment and 70% had a tactile impairment (Correia, 2016). More than half of the respondents (54.6%) correctly perceived the fact that getting aging makes bladder capacity decrease, which leads to frequent urination. In support of this fact, Wehrberger, Madersbacher, Jungwirth, Fischer and Tragl (2012) conducted a study in Austria with 262 participants (96 men and 166 women) aged 85 years, and found a total of 23 (24%) of men and 58 (35%) women ($p = .04$) experienced urinary incontinence.

Among 47 question items, 17 items had under 50% correct responses. Specifically, the lowest score (4.2%) was found to perceive the fact that personality do not alter along with aging. Personality remains consistent in men and women throughout life (Breytspraak et al., 2015), (Specht, 2011). Besides, 90.4% of nurses showed a lack of knowledge with 9.6% correct answer rate about the fact: “*Most old people lose interest in and capacity for sexual relations*”; This incorrect answer rate of nurses contrasted with findings from previous studies where sexual activity was considered an important component of close emotional relationships in old age (Gott and Hinchliff, 2003). However, older adults were found to rarely have discussion with health care professional about sexual issues (Harding and Manry, 2017). The reason of incorrect answer rate among nurses was possibly explained that nurses might not take any training on sexuality in older adults before and rarely had

conversations with older adults regarding sexuality. The earlier researcher found that sexuality is an area that is frequently overlooked by staff who work with older adults in nursing facilities (Steinke, 2021). In other studies, most of the study population did not discuss or only occasionally discussed intimacy and sexuality with older adults, although it was found that the majority of the study population had moderate knowledge and positive attitudes toward intimacy and sexuality in older adults (Wilschut et al., 2021); alternatively, only 20% of nurses in the medical and surgical wards devoted their time to discussing sexual issues, and 40% of nurses felt confident in their ability to solve patients' sexual problems (Saunamäki et al., 2010).

Similarly, 80.8% of the respondents had incorrect answer with the fact that “*Older adults are less anxious about death than are younger and middle-aged adults*”, which was similar to the finding in a study by Atako, 2021 in which 63 (90%) of nursing students had a geriatric nursing course in their undergraduate nursing program, but they answered incorrectly that anxiety and depression are normal parts of the aging process (Atakro, 2021). These results appeared inconsistent with previous studies that showed anxiety and depression were generally caused as a result of physical, psychological, financial and sexual abuse or mistreatments (Kok & Reynolds, 2017; WHO, 2017). Many other reports indicated that there was under-diagnosis of anxiety and depression of older adults by health professional (Bryant et al., 2013; Jeste et al., 2005). This medical negligence might be due to the misconception of a few medical professionals that anxiety and depression were a natural part of aging (Bryant et al., 2013)

In addition to this situation, 79.2% of nurses agreed to the fact “*Increased problems with constipation represent a normal change as people get older*”. This finding might be was inaccurate because studies showed little difference in colonic activity between healthy older and younger people (Wong et al., 2021). Rather, constipation occurrence was related to factors such as inadequate exercise, inadequate fluid intake, a low-fiber diet, or certain medications (Al Khaja et al., 2020; AlMutairi et al., 2020). There were other conditions contributing to the occurrence of constipation such as depression, neurological disorders, and bowel cancer (Al Khaja et al., 2020; AlMutairi et al., 2020). Therefore, it is necessary to identify and treat the cause of constipation in the elderly. Improving nurses' knowledge of the causes and management of constipation in the elderly can help prevent intestinal complications, such as intestinal obstruction, that can result from poorly managed constipation (Kelly, 2019)

Interestingly, as showed in Table 3, most of the nurses gave wrong responses even though 50% of them answered that they had attended courses on geriatrics in their nursing education program. This indicated that having a course on geriatrics while lacking of practical working experience can hinder the knowledge improvement. Then this implies other continuing professional development while working or refresh course on geriatrics would be helpful improve knowledge and attitudes toward older people (Mezey et al., 2006)

The study found that the perception of frailty had a relationship with total knowledge of aging among nurses working in Quang Tri General Hospital and it was statistically significant ($p < 0.05$, CI: (-1.77, -0.21)) that means frailty was associated with the knowledge

of aging. *Frailty represents a gradual loss of the human body's ability to generate energy to sustain itself.* Nurses absorbed this perception had better knowledge of aging. Respondents with this perception can be able to partly see more properly the process of aging as well as gradual decline in body function in older adults. This was possibly explained using the findings in a study conducted by Parish et al., (2019) in which the researchers found from the research review that frailty might be perceived somewhat similarly to aging. The study subjects in reviewed studies described frailty in a whole with physical, psychological and social elements similar to aging {Parish, 2019 #165}. This indicates that training courses or seminars on geriatrics designed with more focus on frailty as well as physical, psychological and social disorders of aging may help provide more understanding of older adults among nurses.

From the findings regarding level of knowledge of aging it could be seen that nurses as health workers had similar perception toward older adults to other Vietnamese and did not highly consider older adult care as a specialty in healthcare with their physical, psychological and social changes. Interestingly, as showed in Table 3, more than 50% of the nurses gave wrong responses to 17 items even though 50% of the respondents answered that they had attended courses on geriatrics in their nursing education program. This indicated that having a course on geriatrics while lacking of practical working experience can hinder the knowledge improvement. Then this implies other continuing professional development while working or refresh course on geriatrics would be helpful improve knowledge and attitudes toward older adults (Mezey et al., 2006).

5.2. Nurses' Attitudes Toward Older Adults by General Characteristics

The average of attitudes scale toward older adults was $121.43(\pm 8.5)$ among 240 respondents. The lowest score was 96 and highest score was 146. The majority of the score was 120/204. Most of the study sample (93.8%) had neutral attitude toward older adults, very low number of the respondents 13(5.4%) had positive attitude, and 2(0.8%) respondents had negative attitude toward older adults. The mean score of the 17 positive items (KAOP+) was $62.13(\pm 12.43)$ and that of negative items (KAOP-) was $59.29(\pm 13.77)$.

The result of attitudes in this study was similar to those of Fernandes et al in 2018 with the same 34-question KAOP questionnaire with a Likert 6 scale and the attitude scores found in their study were 135.6 ± 18.1 at the level of positive attitude. Our results were consistent with the results of Sercan et al (2016) in Turkey with attitude score of 125.6 ± 14.38 using KAOP scale with 34 questions with 6 levels. In a study conducted in Turkey by Darling et al., (2018), positive attitudes toward older adults were also recorded in 468 nursing students and KAOP meanscore was positive ($122.99, \pm 11.5$). Furthermore, Doherty et al. (2011) have reported that nurses and students reported positive attitudes toward older adults, with 97.3% of scores ranging from "slightly positive" to "very positive". Milutinovic et al. 2015 showed that the study population had a positive attitude about older adult health care ($M=123; SD=15.61$) (Milutinovic, 2015 #85}. Similarly found in previous studies in which the study sample had favorable and positive attitude

toward older adult (Shih et. al., 2021), (Elebiary, 2018), (Kang, Moyle and Venturato, 2011).

The study results were different from the research results of Mohammed et al., (2019) with a negative attitude about older adults among nursing students (Mohammed, 2019). In another finding, majority of the nurses (54.3%) had negative attitudes toward the older adults (Arani et al., 2017). Besides, the study of Rathnayake et al., (2016), 45% of the study population had a negative attitude towards older adults, much higher than this study with a negative attitude of the study population on older adults at 18.8% (Rathnayake 2016). The findings of attitude score in this research showed was a low percentage of respondents who had a negative attitude toward older adults, because the tradition to respect, love and support older adults in Vietnam has been sustainable over generations, that “the elderly have an important position in the community, in the family, children and grandchildren have the responsibility to respect and take care of their grandparents, parents, who gave birth to raise their parents and themselves (Bui, 2016). Besides, typical model of Vietnamese family is extended or multi-generational family where children and grandchildren living with grandparents are convenient for taking care of grandparents when they are sick or ill to fulfill duties of caring. This valuable tradition is unlike some developed countries where children and grandchildren live independently from each other and older adults commonly live in nursing homes. With this valuable tradition in Vietnam, the respondents therefore grew up and nurtured a good attitude towards older adults from very young age.

The general characteristics including age, gender, level of nursing education, living with older adults, experience of working years and working with older adults did not significantly affect the attitudes toward older adults among the nurses studied in this study. This finding was congruent with those found in research of 1,367 nurses and age, gender, education level, living with older families did not significantly affect the attitude toward older adults (Lan, 2019), age and gender (Hsu, 2019). Similarly, the length of working experience in current role of 85 nurses among 187 health care workers was not associated with the attitudes toward older adults (Doherty et al., 2011). These results were different from previous studies in which Ariani et al. (2017) conducted a one-way analysis of variance and a significant difference ($P < .05$) was observed among nurses in attitudes toward older adults with age, marital status, work experience and ward type (Arani et al., 2017). Unexpectedly, Oyetunde et al., (2013) reported that nurses had a negative attitude toward caring for older adults despite having considerable knowledge of nursing care for older adults.

This finding was also contrast to that in a study by Lambrinou et al., (2009) in which age and female gender were found to influence both attitudes and knowledge positively (Lambrinou, 2009).

The highest mean KAOP score was for the item “*It is nice when older adults speak about their past*” (4.62 ± 1.10). The items scored with lower to the lowest mean were “*Older adults need no more love than others*” (2.41 ± 1.34), “*Older adults should live in special residences*” (2.63 ± 1.25), *Older adults are unable to change* (2.79 ± 1.19). These scores were

much lower than the midpoint of the scale from 1 to 6. The nurses working Quang Tri General Hospital had less positive attitudes toward older adults regarding their need of love, and they had perception that older adults need a place tailored for them to live, more than living integrated with other generations and even the respondents had negative attitude of older adults' ability to change. These findings possibly were affected by the nurses' prejudice on older adults due to lacking experience related to older adults. As mentioned above, the study found that 45% of them did not have a course on geriatrics during their nursing program. Most of the respondents (77.1%) did not join any workshops or seminars regarding geriatric care while working a nurse in the hospital. The results also indicated one of the most negative perception that the nurses had was "*Older adults are unable to change*" (2.79%) It was found similar with one of the 6 most frequent misconception of knowledge of aging listed on a review of 25 studies conducted by Palmore (1980).

These findings imply that refresh courses or seminars on geriatrics should include topics about the needs and physical as well as psychological disorders of older adults to provider more understanding of older adults among nurses.

5.3. The Relationship Between Nurses' Knowledge of Aging and Attitudes Towards Older Adults

The result of the *Pearson* correlation showed that there was significant positive relationship between the knowledge of aging and attitudes of nurses towards older adults. This study result was supported with the finding that better knowledge on aging was found relative to a more positive attitude found in previous studies by Shih et al. (2021) Ghimire

(2017), Mellor et al. (2007). However, this finding was found different from that in a study conducted by Faronbi (2017), (Cheng et al., 2020).

In the study, all of the nurses working at Quang Tri General Hospital had average level of knowledge for physical, psychological and social changing of older adults, no nurses had high level of knowledge (Table 2). The lowest knowledge score is 18 and highest score is 35. Meanwhile their attitude toward older adults was neutral for the majority (93.8%), positive attitude among 13 nurses (5.4%) and negative among 2 nurses (0.8%) (Table 4). In this study, 45% of the nurses did not have a course on geriatrics during their nursing program, and 77.1% did not join any workshops or seminars regarding geriatric care while working a nurse in the hospital (Table 1). These findings gave a hint to improve the average level of knowledge to be better as well as more positive attitude toward adults. Previous research has shown that more knowledge about aging promotes empathy, better understanding, and the formation of positive attitudes (Kurth & Intrieri, 2017); that nurses properly equipped with better knowledge, skills, and positive attitudes toward older adults could improve patient outcomes, such as shorter hospital stays, reduced readmission rates, and enhanced patient and family satisfaction (Muhsin et al., 2020), (Mattos et al., 2015); that raising awareness of aging issues could change factual knowledge and increased awareness of language that was "politically correct" (Stuart-Hamilton & Mahoney, 2003); that geriatric education can improve knowledge and attitudes toward older people (Mezey et al., 2006); There was an increase in evidence of a correlation between education, knowledge, and attitudes toward older adults, suggesting that gaining a better

understanding of aging through education was important and helpful for nursing students to develop more positive attitudes and interests in working with older adults. (Runkawatt et al., 2016). As mentioned in WHO's Healthy Aging Principles, all healthcare professionals are trained in gerontology and geriatrics, including core geriatric competencies in all health professional curricula. Additional on-the-job training and ongoing professional development in aging health care staff are required. This suggests that nursing curriculum is required for increasing knowledge and more positive attitudes towards older people in Vietnam.

VI. CONCLUSION AND RECOMMENDATIONS

6.1. Key Findings

This study investigated knowledge of aging and attitudes towards older adults of nurses working at a general hospital in a rural province of Vietnam. Firstly, it described nurses' knowledge of facts on aging measured by FAQ and the total score was 27.07(+ 3.11). All the respondents (100%) had neutral knowledge of aging with the range from 18-35, out of a possible score of 47.

The second key finding was that the majority of the nurses (93.8% and 5.4%) working in Quang Tri General Hospital had neutral and positive attitudes respectively towards older adults. There were only two respondents who had negative attitude toward older adults using KAOP score scale. The item for which nurses was the most positive was "It is nice when older adults speak about their past" (4.62±1.10). There was a significant association between the respondents' perception of frailty and negative KAOP.

The third key finding was differences in nurses' knowledge of aging by general characteristics including age, gender, marital status, living with older adults, attending geriatric course while studying nursing program, working department, attending seminars on geriatrics, perception of frailty. There was a significant difference in knowledge with the respondents' perception of frailty ($P<0.05$).

The third key finding was differences in nurses' attitudes toward older adults by general characteristics including age, gender, marital status, living with older adults, attending

geriatric course while studying nursing program, working department, attending seminars on geriatrics, perception of frailty.

Final key finding was that there was significant positive relationship between the knowledge of aging and attitudes of nurses towards older adults.

6.2. Strengths and Limitations

The study has both strengths and limitation. This study highlighted level of knowledge and attitudes toward older adults among nurses as well as differences in nurses' knowledge of aging and attitudes toward older adults by general characteristics. The fulfillment of this could make some contributions to changes in the hospital policy on healthworkers' capacity development, training organization's orientation as well as nurses' self-improvement and better quality of care and patients' satisfaction. However, the sample employed in this study was conveniently drawn from the only general hospital in urban area in Quang Tri province. In this regard, the sample from one general hospital may limit the generalization of the findings given that all general hospitals in the same context in rural provinces may have.

6.3. Recommendations

With the study results described as well as strengths and limitations mentioned above, there are some recommendations to be made. First of all, future studies should be conducted with different hospitals to investigate nurses' knowledge of aging and attitudes

toward the elderly, and to apply a mixed-method research approach to expand the generalizability of current findings.

Secondly, the current study recommends that health institutions' management enhances the opportunities of organizing seminars on geriatrics as well as promoting nurses to join seminars on geriatrics to ensure better knowledge of aging and more positive attitudes towards older adults among nurses are displayed at hospital work performance. Finally, the current study recommends there should be improved training courses on geriatric for current nursing education program for nursing students as well as short refresh courses for nurses working in general hospitals to improve the current nurses' knowledge and attitudes toward older adults as well as better to prepare for future nurses to provide better quality of older adult care.

6.4. Conclusions

The findings of this study indicated that the respondents had different levels of nursing education in which majority of the respondents had junior college with three years training program and university level with 4-year program. Surprisingly level of nursing education was not significantly associated with the nurses' knowledge of aging as well as their attitudes toward older adults. Besides, majority of the respondents reported the presence of older people in their families. However, it showed that living with older people in the family did not contribute significantly the nurses' knowledge of aging or their attitude toward older adults. Therefore, seminars on geriatrics or refresh nursing programs should increase topics regarding perception of faulty, knowledge of aging, regardless of their level

of nursing education as well as prior exposure to older people in their families. The findings of this study indicated that all of the nurses had neutral level of knowledge and almost all of them had neutral attitudes towards older people. Nurses' knowledge of aging was found significantly correlated with their attitudes toward older adults.

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APPENDIX 1: Questionnaire

QUESTIONNAIRE

Knowledge of Aging and Attitudes Toward Older Adults of Nurses Working at a General Hospital in Vietnam

Survey Date: Code
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Population aging in countries around the world, including in Vietnam, is happening at a rapid pace. The proportion of elderly people is increasing along with the increasing demand for health care for the elderly. The nursing staff is a pioneer force in the care of patients in general and the elderly in particular. The need for nursing staff with knowledge about aging and the right attitude about the elderly is necessary in preparing to meet the needs of society today and in the future.

To get more information about the current state of knowledge about aging and attitudes towards the elderly of nurses working at provincial hospitals, our research team conducted a survey "Knowledge about Aging and Attitudes toward Older Adults of Nurses Working at a General Hospital in Vietnam."

Please take a moment to answer the following questions related to this survey. The information you provide will be valuable, contributing to improving the quality of care for the elderly in the future. Your participation in the study is completely voluntary. The personal information you provide will be kept completely confidential and will be used for research purposes only. The expected time to complete the survey is within 25-30 minutes.

If you have any questions, please feel free contact Ms. Bui Thi Thanh Loan, Master student at Graduate School of Public Health, Yonsei University, Korea via Email: loanpepper2020552060@yonsei.ac.kr

- 1. Gender of the respondent:** 1. Male 2. Female
- 2. When is your year of Birth:**
- 3. What is your marital status:**
 1. Single 2. Married 3. Separate 4. Divorced 5. Widowed
- 4. Are you living with older adults (above 60) in your family?**
 1. No
 2. Yes
- 5. What is your level of qualification?**
 1. Elementary (9-month course program)
 2. Technical (Intermediate course program)
 3. College (3 - year course program)
 4. University (4-year course program)
 5. Post Graduate
- 6. Which ward/department are you currently working:**
 1. Internal/Medical Ward
 2. Surgical Ward
 3. Geriatric Ward
 4. Department of Tropical Diseases (Communicable Diseases)
 5. ENT ward
 6. Tooth-Jaw-Face Ward
 7. Examination Ward
 8. Ophthalmological Ward
 9. Oncology Department
 10. Traditional medicine Ward
 11. Neuro-psychiatric Ward
 12. Gynecological - Obstetric Ward
 13. Dermatological Ward
 14. Infection Control Department

15. Anesthesiology and Resuscitation Department

16. Active Resuscitation Department

17. Rehabilitation Ward

7. How many years have you been working in the hospital as a nurse?

Years

8. How many years have you been working with the older people as a nurse ?

Years

9. Did you attend a course on geriatrics when you studied Nursing?

1. No

2. Yes

10. Have you attended workshops or seminars regarding elderly care while working as a nurse?

1. No

2. Yes

11. According to you, "frailty" represents a sudden loss of the human body's ability to generate energy to sustain itself

1. True

2. False

KNOWLEDGE OF AGING (FACTS OF AGING QUIZ)

Please read CAREFULLY each statement and decide your opinion by choosing "True" or "False"

12	The majority of old people (past 60 years) have Alzheimer's disease.	True	False
13	As people grow older, their intelligence declines significantly	True	False
14	It is very difficult for older adults to learn new things.	True	False
15	Personality changes with age.	True	False
16	Memory loss is a normal part of aging.	True	False
17	As adults grow older, reaction time increases	True	False

18	Clinical depression occurs more frequently in older than younger people.	True	False
19	Older adults are at risk for HIV/AIDS	True	False
20	Alcoholism and alcohol abuse are significantly greater problems in the adult population over age 60 than that under age 60	True	False
21	Older adults have more trouble sleeping than younger adults do.	True	False
22	Older adults have the highest suicide rate of any age group	True	False
23	High blood pressure increases with age	True	False
24	Older people perspire less, so they are more likely to suffer from hyperthermia	True	False
25	All women develop osteoporosis as they age	True	False
26	A person's height tends to decline in old age	True	False
27	Physical strength declines in old age	True	False
28	Most old people lose interest in and capacity for sexual relations	True	False
29	Bladder capacity decreases with age, which leads to frequent urination	True	False
30	Kidney function is not affected by age	True	False
31	Increased problems with constipation represent a normal change as people get older	True	False
32	All five senses tend to decline with age	True	False
33	As people live longer, they face fewer acute conditions and more chronic health conditions	True	False
34	Retirement is often detrimental to health--i.e., people frequently seem to become ill or die soon after retirement	True	False
35	Older adults are less anxious about death than are younger and middle-aged adults	True	False
36	People 60 years of age and older currently make up about 20% of the Vietnamese population	True	False
37	The modern family no longer takes care of its elderly	True	False

38	The life expectancy of men at age 60 is about the same as that of women	True	False
39	Social Security benefits automatically increase with inflation	True	False
40	Living below or near the poverty level is no longer a significant problem for most older Vietnamese	True	False
41	Most older drivers are quite capable of safely operating a motor vehicle	True	False
42	Older workers cannot work as effectively as younger workers	True	False
43	The majority of old people are bored	True	False
44	In general, most old people are pretty much alike	True	False
45	Older adults (60+) have higher rates of criminal victimization than adults under 60 do	True	False
46	Older people tend to become more spiritual as they grow older	True	False
47	Older adults (60+) are more fearful of crime than are persons under 60	True	False
48	Older people do not adapt as well as younger age groups when they relocate to a new environment	True	False
49	Participation in volunteering through organizations (e.g., pagodas, churches and clubs) tends to decline among older adults	True	False
50	Older people are much happier if they are allowed to disengage from society	True	False
51	Geriatrics is a specialty in Vietnamese medicine	True	False
52	All medical schools now require students to take courses in geriatrics and gerontology	True	False
53	Abuse of older adults is not a significant problem in the Vietnam	True	False
54	Grandparents today take less responsibility for rearing grandchildren than ever before	True	False

55	Older persons take longer to recover from physical and psychological stress	True	False
56	Most older adults consider their health to be good or excellent	True	False
57	Older females exhibit better health care practices than older males	True	False
58	Research has shown that old age truly begins at 60	True	False

ATTITUDES TOWARDS OLDER PEOPLE (KAOP)

Please read **CAREFULLY** each statement and decide your opinion by circling your answer ranking from

1 (*strongly disagree*),

2 (*disagree*),

3 (*slightly disagree*),

4 (*slightly agree*),

5 (*agree*),

and 6 (*strongly agree*).

	Statement	1	2	3	4	5	6
59	It would probably be better if most OP lived in residential units with people their own age.	1	2	3	4	5	6
60	It would probably be better if most people lived in residential units with younger people.	1	2	3	4	5	6
61	There is something different about most people; it's hard to find out what makes them tick.	1	2	3	4	5	6
62	Most OP are really no different from anybody else; they are as easy to understand as younger people.	1	2	3	4	5	6
63	Most OP get set in their ways and are unable to change.	1	2	3	4	5	6
64	Most OP are capable of new adjustments when the situation demands it.	1	2	3	4	5	6
65	Most OP would prefer to quit work as soon as pensions or their children can support them.	1	2	3	4	5	6

66	Most OP would prefer to continue working just as long as they possibly can rather than be dependent on anybody	1	2	3	4	5	6
67	Most OP tend to let their homes become shabby and unattractive.	1	2	3	4	5	6
68	Most OP can generally be counted on to maintain a clean, attractive home.	1	2	3	4	5	6
69	It is foolish to claim that wisdom comes with age	1	2	3	4	5	6
70	People grown wiser with the coming of old age	1	2	3	4	5	6
71	OP have too much power in business and politics.	1	2	3	4	5	6
72	OP should have power in business and politics	1	2	3	4	5	6
73	Most OP make one feel ill at ease.	1	2	3	4	5	6
74	Most OP are very relaxing to be with.	1	2	3	4	5	6
75	Most OP bore others by their insistence on talking “about the good elderly days”.	1	2	3	4	5	6
76	One of the most interesting and entertaining qualities of most OP is their accounts of their past experiences.	1	2	3	4	5	6
77	Most OP spend too much time prying into the affairs of others and giving unsought advice.	1	2	3	4	5	6
78	Most OP tend to keep to themselves and give advice only when asked.	1	2	3	4	5	6
79	If OP expect to be liked, their first stop is to try to get rid of their irritating faults.	1	2	3	4	5	6
80	When you think about it, OP have the same faults as anybody else.	1	2	3	4	5	6
81	In order to maintain a nice residential neighborhood, it would be best if too many OP did not live in it.	1	2	3	4	5	6
82	You can count on finding a nice residential neighborhood when there is a sizeable number of OP living in it.	1	2	3	4	5	6
83	There are a few exceptions, but in general most OP are pretty much alike.	1	2	3	4	5	6
84	It is evident that most OP are very different from one another.	1	2	3	4	5	6
85	Most OP should be more concerned with their personal appearance; they are too untidy.	1	2	3	4	5	6
86	Most OP seem quite clean and neat in their personal appearance.	1	2	3	4	5	6
87	Most OP are irritable, grouchy, and unpleasant.	1	2	3	4	5	6

88	Most OP are cheerful, agreeable, and good humored.	1	2	3	4	5	6
89	Most OP are constantly complaining about the behavior of the younger generation.	1	2	3	4	5	6
90	One seldom hears OP complaining about the behavior of the younger generation.	1	2	3	4	5	6
91	Most OP make excessive demands for love and reassurance than anyone else.	1	2	3	4	5	6
92	Most OP need no more love and reassurance than anyone else.	1	2	3	4	5	6

PHIẾU KHẢO SÁT

Kiến thức về lão hóa và Thái độ về người cao tuổi của điều dưỡng tại Bệnh viện Đa khoa tuyến tỉnh, Việt Nam.

Già hóa dân số ở các nước trên thế giới, trong đó ở Việt Nam đang diễn ra với tốc độ nhanh. Tỷ lệ người cao tuổi ngày càng cao đi cùng với nhu cầu chăm sóc sức khỏe người cao tuổi ngày càng lớn. Lực lượng cán bộ điều dưỡng là lực lượng tiên phong trong công tác chăm sóc người bệnh nói chung và người cao tuổi nói riêng. Nhu cầu đối với cán bộ điều dưỡng có kiến thức về lão hóa và thái độ đúng đắn về người cao tuổi là cần thiết trong công tác chuẩn bị đáp ứng nhu cầu của xã hội hiện nay và trong thời gian đến.

Để có thêm thông tin thực trạng kiến thức về lão hóa và thái độ đối với người cao tuổi của điều dưỡng công tác tại bệnh viện tuyến tỉnh, nhóm nghiên cứu chúng tôi tiến hành khảo sát “Kiến thức về lão hóa và Thái độ về người cao tuổi của điều dưỡng công tác tại một bệnh viện tuyến tỉnh, Việt Nam.”

Kính mong anh/chị dành thời gian ngắn để trả lời một số câu hỏi liên quan đến khảo sát này. Thông tin các anh/chị cung cấp rất có giá trị góp phần đến việc nâng cao chất lượng chăm sóc người cao tuổi trong thời gian tới. Việc tham gia nghiên cứu của anh/chị là hoàn toàn tự nguyện. Những thông tin cá nhân mà anh/chị cung cấp sẽ được giữ bí mật hoàn toàn và chỉ sử dụng cho mục đích khảo sát. Thời gian hoàn thành khảo sát trong vòng 25-30 phút.

Mọi thắc mắc anh/chị có thể liên hệ với Bùi Thị Thanh Loan, Khoa Y tế Công cộng, trường Đại học Yonsei, Hàn Quốc qua Email: loanpepper2020552060@yonsei.ac.kr

Ngày khảo sát:
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Mã phiếu

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Thông tin chung

1. Giới tính của người trả lời phỏng vấn? 1. Nam 2. Nữ
2. Vui lòng ghi năm sinh của anh/chị?
3. Tình trạng hôn nhân của anh/chị là gì?
 1. Độc thân 2. Kết hôn 3. Ly hôn 4. Góa
4. Anh/chị có đang sống cùng người cao tuổi (trên 60 tuổi) trong gia đình không?
 1. Không
 2. Có
5. Trình độ chuyên môn của anh/chị là gì?
 1. Sơ cấp
 2. Trung cấp
 3. Cao đẳng
 4. Đại học
 5. Sau đại học
6. Hiện tại anh/chị đang công tác tại Khoa/phòng nào?
 1. Khoa Nội
 2. Khoa Ngoại
 3. Khoa Lão khoa
 4. Khoa Bệnh nhiệt đới
 5. Khoa Tai Mũi Họng
 6. Khoa Răng Hàm Mặt
 7. Khoa Khám bệnh
 8. Khoa Mắt
 9. Khoa Ung bướu
 10. Khoa Đông y (Y học cổ truyền)

11. Khoa Tâm- Thần kinh
12. Khoa Sản-Phụ khoa
13. Khoa Da liễu
14. Khoa kiểm soát nhiễm khuẩn
15. Khoa Gây mê hồi sức
16. Khoa Hồi sức tích cực
17. Khác

7. Tổng số năm làm công tác điều dưỡng của anh/chị là năm.

8. Tổng số năm làm việc có liên quan đến chăm sóc người cao tuổi là năm.

9. Anh/chị đã tham gia khóa học/môn học chuyên về điều dưỡng lão khoa trong chương trình học Điều dưỡng của mình không?

1. Có
2. Không

10. Trong thời gian công tác, anh/chị có tham gia Hội thảo, chuyên đề về chăm sóc lão khoa không?

1. Có
2. Không

11. Theo anh/chị, “yếu ớt” là việc mất khả năng tạo ra năng lượng để duy trì bản thân của con người một cách đột ngột.

1. Đúng
2. Sai

KIẾN THỨC VỀ LÃO HÓA

Anh/chị hãy đọc kỹ câu hỏi và cho biết ý kiến của mình về mỗi câu hỏi đó bằng cách chọn “Đúng” hoặc “Sai” cho mỗi câu:

12	Đa số người cao tuổi (trên 60 tuổi) đều bị bệnh Alzheimer	Đúng	Sai
13	Càng về già, con người càng kém thông minh	Đúng	Sai
14	Rất khó cho người cao tuổi để học những điều mới mẻ	Đúng	Sai
15	Tính cách thay đổi theo tuổi tác	Đúng	Sai

16	Mất trí nhớ là một phần bình thường của quá trình lão hóa	Đúng	Sai
17	Khi càng có tuổi, phản ứng của con người sẽ chậm hơn	Đúng	Sai
18	Trầm cảm được chẩn đoán trên lâm sàng phổ biến hơn ở người cao tuổi so với người trẻ tuổi	Đúng	Sai
19	Người cao tuổi có nguy cơ nhiễm HIV / AIDS	Đúng	Sai
20	Nghiện rượu và lạm dụng chất chứa cồn là những vấn đề lớn hơn đáng kể ở nhóm dân số trên 60 tuổi so với nhóm dân số dưới 60 tuổi	Đúng	Sai
21	Người cao tuổi khó ngủ hơn những người trẻ tuổi	Đúng	Sai
22	Người cao tuổi có tỷ lệ tự tử cao nhất so với các lứa tuổi khác	Đúng	Sai
23	Cao huyết áp tăng dần theo tuổi	Đúng	Sai
24	Người lớn tuổi đổ mồ hôi ít hơn nên họ dễ bị tăng thân nhiệt	Đúng	Sai
25	Tất cả phụ nữ đều bị loãng xương khi họ già đi	Đúng	Sai
26	Chiều cao của một người có xu hướng giảm khi về già	Đúng	Sai
27	Thể lực suy giảm khi về già	Đúng	Sai
28	Hầu hết người cao tuổi mất hứng thú và khả năng quan hệ tình dục	Đúng	Sai
29	Dung tích bàng quang giảm dần theo tuổi dẫn đến tình trạng đi tiểu nhiều lần	Đúng	Sai
30	Chức năng thận không bị ảnh hưởng bởi tuổi tác	Đúng	Sai
31	Các vấn đề liên quan đến táo bón xảy ra nhiều hơn là một thay đổi bình thường khi con người già đi	Đúng	Sai
32	Cả 5 giác quan đều có xu hướng suy giảm theo tuổi tác	Đúng	Sai
33	Khi sống thọ hơn, người ta phải đối mặt với ít bệnh cấp tính hơn và nhiều bệnh mãn tính hơn	Đúng	Sai
34	Nghỉ hưu thường là bất lợi cho sức khỏe – ví dụ như là mọi người thường có vẻ như bị bệnh hoặc chết sớm sau khi nghỉ hưu	Đúng	Sai
35	Người cao tuổi thì ít lo lắng về cái chết hơn so với những người trẻ tuổi và trung niên	Đúng	Sai
36	Những người từ 60 tuổi trở lên hiện chiếm khoảng 20% dân số Vietnam (13.6% - 2020)	Đúng	Sai
37	Gia đình hiện đại không còn chăm sóc cho người cao tuổi nữa	Đúng	Sai

38	Ở tuổi 60, tuổi thọ của nam giới ngang bằng với tuổi thọ của nữ giới	Đúng	Sai
39	Phúc lợi An sinh xã hội tự động tăng theo lạm phát	Đúng	Sai
40	Sống dưới hoặc gần mức nghèo không còn là vấn đề đáng kể đối với hầu hết người cao tuổi ở Việt Nam	Đúng	Sai
41	Hầu hết những tài xế lớn tuổi đều có khả năng điều khiển xe cộ một cách an toàn	Đúng	Sai
42	Những công nhân lớn tuổi không thể làm việc hiệu quả bằng những công nhân trẻ hơn	Đúng	Sai
43	Đa số người cao tuổi đều buồn chán	Đúng	Sai
44	Nói chung, hầu hết người cao tuổi đều khá giống nhau	Đúng	Sai
45	Tỷ lệ người cao tuổi (60+) trở thành nạn nhân của các vụ phạm tội cao hơn so với người trưởng thành dưới 60 tuổi	Đúng	Sai
46	Người cao tuổi có xu hướng trở nên tâm linh hơn khi họ thêm tuổi	Đúng	Sai
47	Người cao tuổi (60+) sợ phạm tội hơn những người dưới 60 tuổi	Đúng	Sai
48	Khi chuyển đến môi trường sống mới, người cao tuổi không dễ thích nghi như người trẻ tuổi hơn	Đúng	Sai
49	Việc tham gia tình nguyện thông qua các tổ chức (ví dụ: chùa nhà thờ và câu lạc bộ) có xu hướng giảm đi ở người cao tuổi	Đúng	Sai
50	Người cao tuổi hạnh phúc hơn nhiều nếu họ được phép tách rời khỏi xã hội	Đúng	Sai
51	Lão khoa là một chuyên khoa trong y học Việt Nam	Đúng	Sai
52	Tất cả các trường y khoa hiện nay đều yêu cầu sinh viên tham gia các khóa học về lão khoa và chăm sóc người cao tuổi	Đúng	Sai
53	Lạm dụng người cao tuổi không phải là một vấn đề nghiêm trọng ở Việt Nam	Đúng	Sai
54	Ông bà ngày nay chịu ít trách nhiệm hơn trong nuôi dạy cháu hơn bao giờ hết	Đúng	Sai
55	Người cao tuổi mất nhiều thời gian hơn để hồi phục sau căng thẳng về thể chất và tâm lý	Đúng	Sai
56	Hầu hết người cao tuổi coi sức khỏe của họ là tốt hoặc xuất sắc	Đúng	Sai

57	Phụ nữ cao tuổi thực hành chăm sóc sức khỏe tốt hơn nam giới cao tuổi	Đúng	Sai
58	Nghiên cứu đã chỉ ra rằng tuổi già thực sự bắt đầu từ tuổi 60.	Đúng	Sai

THÁI ĐỘ VỀ NGƯỜI CAO TUỔI (KAOP)

Anh/chị hãy đọc kỹ câu hỏi và cho biết ý kiến của mình về mỗi câu hỏi đó bằng cách khoanh tròn vào ô tròn tương ứng

- 1 (Hoàn toàn không đồng ý),
 2 (Không đồng ý),
 3 (Hơi không đồng ý),
 4 (Hơi đồng ý)
 5 (Đồng ý)
 6 (Hoàn toàn đồng ý).

	Quan điểm	1	2	3	4	5	6
59	Có thể sẽ tốt hơn cho hầu hết người cao tuổi nếu họ sống ở những khu vực dân cư có những người cùng độ tuổi sinh sống.	1	2	3	4	5	6
60	Có thể sẽ tốt hơn cho hầu hết người cao tuổi nếu họ sinh sống những khu vực dân cư có những người trẻ tuổi cùng sinh sống	1	2	3	4	5	6
61	Mỗi người đều có một vài điều khác biệt; Thật khó để tìm ra được điều tạo ra sự khác biệt đó.	1	2	3	4	5	6
62	Hầu hết người cao tuổi thật sự không có sự khác biệt so với người khác, họ cũng dễ hiểu như những người trẻ tuổi khác	1	2	3	4	5	6
63	Hầu hết người cao tuổi có các thói quen cố định và không thể thay đổi họ được	1	2	3	4	5	6
64	Hầu hết người cao tuổi có thể điều chỉnh để thích nghi khi hoàn cảnh yêu cầu họ thay đổi	1	2	3	4	5	6

65	Hầu hết người cao tuổi thích nghỉ việc hơn khi l ương hưu của họ đủ dùng hoặc con cái có thể hỗ trợ đủ cho họ	1	2	3	4	5	6
66	Hầu hết người cao tuổi thích tiếp tục làm việc hơn khi họ vẫn có thể làm, hơn là phụ thuộc vào ai đó	1	2	3	4	5	6
67	Hầu hết người cao tuổi có xu hướng để nhà cửa cũ kỹ và thiếu thẩm mỹ.	1	2	3	4	5	6
68	Hầu hết người cao tuổi có thể đóng góp vào việc giữ gìn nhà cửa sạch sẽ và đẹp mắt	1	2	3	4	5	6
69	Thật là ngớ ngẩn khi cho rằng sự thông thái đến cùng tuổi già	1	2	3	4	5	6
70	Khi về già, người ta khôn khéo hơn	1	2	3	4	5	6
71	Người cao tuổi có quá nhiều quyền lực trong kinh doanh và chính trị	1	2	3	4	5	6
72	Người cao tuổi nên nắm quyền lực trong kinh doanh và chính trị	1	2	3	4	5	6
73	Hầu hết người cao tuổi dễ dàng khiến cho ai đó khó chịu	1	2	3	4	5	6
74	Hầu hết người cao tuổi làm cho người khác cảm thấy thoái mái khi ở bên cạnh	1	2	3	4	5	6
75	Hầu hết người cao tuổi làm người khác thấy chán vì cứ khăng khăng kể về “những chuyện thú vị ngày xưa”	1	2	3	4	5	6
76	Một trong những phẩm chất thú vị nhất và mang lại thích thú nhất của người cao tuổi là nói về những kinh nghiệm rong quá khứ của họ	1	2	3	4	5	6
77	Hầu hết người cao tuổi mất nhiều thời gian tìm hiểu việc của người khác và đưa ra những lời khuyên khó hiểu.	1	2	3	4	5	6
78	Hầu hết người cao tuổi có xu hướng giữ kín thông tin cho riêng họ và chỉ đưa ra lời khuyên khi được hỏi.	1	2	3	4	5	6
79	Nếu người cao tuổi mong muốn được người khác yêu mến mình, điều đầu tiên là họ cố gắng bỏ đi những lỗi lầm khó chịu của họ	1	2	3	4	5	6

80	Người cao tuổi cũng có những lỗi lầm như bất cứ người nào khác	1	2	3	4	5	6
81	Để duy trì khu phố dân cư hài hòa, tốt nhất là không nên có quá nhiều người cao tuổi sinh sống ở đó	1	2	3	4	5	6
82	Có thể tìm một khu phố dân cư hài hòa khi ở đó có số lượng lớn người cao tuổi sinh sống ở đó	1	2	3	4	5	6
83	Hầu hết mọi người cao tuổi đều khá giống nhau, chỉ có một vài người ngoại lệ	1	2	3	4	5	6
84	Rõ ràng là hầu hết giữa người cao tuổi là rất khác nhau	1	2	3	4	5	6
85	Hầu hết người cao tuổi nên quan tâm nhiều hơn đến bề ngoài cá nhân của họ vì họ chưa gọn gàng	1	2	3	4	5	6
86	Hầu hết người cao tuổi trông có vẻ có ngoại hình cá nhân khá sạch sẽ và gọn gàng	1	2	3	4	5	6
87	Hầu hết người cao tuổi đều cấu kính, hay giận dỗi và khó chịu	1	2	3	4	5	6
88	Hầu hết người cao tuổi đều vui vẻ, dễ mến và hài hước	1	2	3	4	5	6
89	Hầu hết người cao tuổi đều luôn phàn nàn về cách cư xử của thế hệ trẻ	1	2	3	4	5	6
90	Người ta hiếm khi nghe người cao tuổi phàn nàn về cách cư của thế hệ trẻ	1	2	3	4	5	6
91	Hầu hết người cao tuổi đều đưa ra những yêu cầu thái quá về sự yêu thương và sự đảm bảo hơn những người khác	1	2	3	4	5	6
92	Hầu hết người cao tuổi không cần tình yêu thương và sự đảm bảo hơn những người khác.	1	2	3	4	5	6

APPENDIX 2: Abstract (Korean)

요약

배경: 베트남을 비롯한 세계 각국의 고령화 현상이 빠른 속도로 진행되고 있습니다. 고령자에 대한 건강 관리에 대한 수요가 증가함에 따라 노인의 비율이 증가하고 있습니다. 현재와 미래 사회의 요구에 부응하기 위해서는 고령화에 대한 지식과 노인에 대한 올바른 자세를 갖춘 간호인력이 필요합니다.

목적: 본 연구는 베트남 팡찌성 지방급 종합병원 간호사의 노인에 대한 지식과 태도 수준을 알아보고, 노인에 대한 지식과 태도의 차이를 다음을 통해 규명하고자 하였다. 설문 조사 간호사의 일반적인 특성.

방법: 본 연구는 KAOP(Kogan's Attitudes Toward Old People Scale)가 포함된 온라인 자가 설문지를 이용하여 간호사 240 명(여자 219 명, 남자 간호사 21 명)을 대상으로 노화에 대한 지식과 노인에 대한 태도를 조사한 횡단면 연구를 사용했습니다.) 및 Palmore 의 Facts of Aging Quiz(FAQ). 본 연구에서는 60 세 이상을 노인으로 정의하였다.

결과: 모든 간호사(100%)가 평균 노화에 대한 지식 수준(FAQ 점수 18~35)을 가졌고, 대다수의 간호사(225, 93.8%)가 중립적 태도(KAOP 점수 102~136), 13 간호사의 5.4%는 긍정적인 태도를 보였고(KAOP 점수는 137 에서 204), 2 명(18.8%)은 노인에 대해 부정적인 태도를 보였습니다(KAOP 점수 34 에서 101 점). 응답자의 52%가 노쇠에 대한 올바른 인식을 갖고 있었으며, 이는 응답자의 FAQ 점수($p < .05$) 및 노인에 대한 부정적인 태도(KAOP-)($p < .05$)에서 통계적으로 유의한 것으로 나타났습니다. 총 KAOP 점수는 연령, 성별, 고령자와 동거, 근무 부서, 노인과 과정 수강, 노인의학 세미나 참석 여부에 따라 유의한 차이가 없었다. 노화에 대한 지식과 노인에 대한 태도 사이에는 유의한 양의 관계가 있었다.

결론: 팡찌종합병원 간호사의 대다수는 평균 수준의 노화에 대한 지식과 노인에 대한 중립적인 태도를 가지고 있다. 이는 노인에 대한 인식뿐만 아니라 노화에 대한

지식의 개선이 필요함을 시사한다. 따라서 노인요양간호사를 위한 지속적인 훈련 프로그램과 직업 개발 과정은 노인 간호의 질을 향상시키기 위해 간호사들 사이에서 노화에 대한 더 나은 지식과 노인에 대한 긍정적인 태도를 높일 수 있도록 설계되고 개발되어야 합니다.

키워드: 노인, 노인에 대한 지식, 간호사 중 노인에 대한 태도