KNOWLEDGE AND ATTITUDE TOWARD ELDERLY AMONG REGISTERED NURSES IN HOSPITAL UNIVERSITI SAINS MALAYSIA (HOSPITAL USM)

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by

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Dissertation submitted in partial fulfillment of the requirements for the degree of Bachelor of Nursing (Honours)

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CERTIFICATE

This is to certify that the dissertation entitled "Knowledge and Attitude toward Elderly among Registered Nurses in Hospital Universiti Sains Malaysia (Hospital USM) " is the bona fide record of research work done by Ms Nurul Hazreena Binti Jamaludin during the period from September 2019 to August 2020 under my supervision. I have read this dissertation and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation to be submitted in partial fulfillment for the degree of Bachelor of Nursing (Honours).

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated and duly acknowledged. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at Universiti Sains Malaysia or other institutions. I grant Universiti Sains Malaysia the right to use the dissertation for teaching, research and promotional purposes.

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LIST OF ABBREVIATION

ADLs   Activity Daily Livings

FAQ   Facts of Aging Quiz

HREC   Human Research Ethics Committee

HUSM   Hospital Universiti Sains Malaysia

MCO   Movement Control Order

RKAOP   Revised Kogan Attitude toward Older People

SPSS   Statistical Package Social Sciences

TPB   Theory of Planned Behavior

UK   United Kingdom

USA   United States of America

WHO   World Health Organization

Pengetahuan dan Sikap Terhadap Warga Emas Di Kalangan Jururawat Berdaftar di Hospital Universiti Sains Malaysia (Hospital USM)

ABSTRAK

Warga tua ditakrifkan sebagai mereka yang berumur 60 tahun ke atas yang setara dengan usia persaraan (World Health Organization, 2016). Seiring bertambahnya populasi warga tua, keperluan jururawat berdaftar dengan sikap yang betul, pengetahuan dan kemahiran yang mencukupi juga harus meningkat. Kajian keratan rentas dilakukan untuk mengkaji pengetahuan dan sikap terhadap warga tua di kalangan jururawat berdaftar di Hospital USM. Soal selidik yang digunakan dalam kajian ini adalah soal selidik yang dikendalikan sendiri dan untuk pengetahuan dan sikap, soal selidik diadaptasi dari Palmore (1988) dan Hilt & Lipschultz (1997). Sebanyak 75 jururawat berdaftar di Hospital USM yang memenuhi kriteria kemasukan dan pengecualian dipilih secara rawak. Data yang dikumpulkan dianalisis secara statistik menggunakan perisian SPSS versi 24.0. Ujian tepat Fisher digunakan untuk analisis data. Bagi tahap pengetahuan dan sikap, hasilnya menunjukkan 49 (65.3%) untuk pengetahuan tinggi dan 65 (86.7%) masing-masing untuk sikap positif. Seterusnya tidak ada hubungan antara pendidikan kursus dan pengalaman bekerja dengan tahap sikap terhadap orang tua (p = 1.000) dan (p = 0.484) masing-masing. Akhir sekali, tidak ada hubungan antara tahap pengetahuan dan sikap (p = 0.731), hasilnya menunjukkan hanya 43 (87.8%) bagi responden yang mempunyai pengetahuan tinggi dan sikap positif. Kesimpulannya, tahap pengetahuan dan sikap perlu ditingkatkan di kalangan jururawat berdaftar kerana mereka akan lebih berpengetahuan dan mahir dalam memberikan penjagaan kepada warga tua.

Knowledge and Attitude Toward Elderly Among Registered Nurses in Hospital Universiti Sains Malaysia (Hospital USM)

ABSTRACT

The elderly defined as those aged 60 or above that equivalent to retirement ages (World Health Organization, 2016). As the increasing of the elderly population, the need of registered nurses with the right attitude, adequate knowledge and skill also must be on the increase. A cross-sectional study was carried out to study the knowledge and attitude toward the elderly among registered nurses in Hospital USM. The questionnaire used in this study was a self-administered questionnaire and for knowledge and attitude, the questionnaires was adapted from Palmore (1988) and Hilt & Lipschultz (1997). A total of 75 registered nurses in Hospital USM who fulfilled the inclusion and exclusion criteria were selected randomly. Data collected were statistically analyzed using the SPSS software version 24.0. Fisher's exact test was used for data analysis. As for the level of knowledge and attitude, the results show 49 (65.3%) for high knowledge and 65 (86.7%) for positive attitude respectively. Next is there is no association between course education and working experience with the level of attitude toward the elderly (p = 1.000) and (p = 0.484) respectively. Lastly, there was no association between level of knowledge and attitude (p = 0.731), the results show only 43 (87.8%) for respondents who have high knowledge and positive attitude. In conclusion, the level of the knowledge and attitude need to be increased and improved among registered nurses as they will be more knowledgeable and skilful in delivering care toward the elderly.

CHAPTER 1 INTRODUCTION

1.1 Background of the Study

Globally, there is an increasingly elderly population and the 60 years old adults comprise the fastest-growing age group with a significant increase in developing countries. These changes indicated due to the growth of the elderly population. By 2050, the world's population aged 60 years and above is estimated to total 2 billion, up from 900 million in 2015. Today, 125 million people are aged 80 years or older (World Health Organization, 2018).

Indeed, according to the World Health Organization, elderly care is critical as well as the typical life stressors common to all people. Many elderly lose their ability to live independently because of limited mobility, chronic pain, frailty or other mental or physical problems, and require some form of long-term care. Besides that, the elderly are more likely to experience events such as bereavement, a drop in socioeconomic status with retirement, or a disability. All these factors can result in isolation, loss of independence, loneliness and psychological distress in the elderly (World Health Organization, 2016).

The elderly population is one of the most challenging problems of modern societies which has a direct effect on public health and social care systems (Muangpaisan, Intalapapron, & Assantachai, 2008). Population ageing in the current century is progressing to a public health issue. Prolonging human life also enhancing the quality of health. Therefore, considering the needs and problems of the elderly is an important issue. The importance of quality of life in the elderly is highlighted because everyone has the right to experience healthy ageing. Due to changing populations demographics, there is a growing worldwide need for nurses who are knowledgeable and committed to working

with elderly. Some of the nurses often viewed the elderly as a nurse's burden and an obstacle in the care of the elderly (Lui et el., 2009).

In addition, because of the physical, psychological, emotional and financial challenges that elderly can face, they often become increasingly dependent on others for care as there are a lot of things, they can not longer due for themselves. Elderly often become increasingly dependent on their children and relatives for economic, social and psychological support, especially in situations where they do not have a pension or reliable income from retirement. Lack of adequate support by family members may adversely affect the health of elderly, causing morbidity and sometimes mortality of the elderly (Dong & Simon, 2017).

Researchers found that four out of five elderly persons have already been diagnosed with at least one chronic health condition, while almost half have two chronic health issues such as arthritis, cancer, diabetes, heart disease, high cholesterol, or high blood pressure. This research also supports that these chronic health conditions may cause a decline in function and affect the elderly's quality of life and healthcare needs (Kydd, 2013).

The increased need for elderly care will involve a whole range of health care settings, from community health centres to hospitals and nursing homes (Kydd, 2013). This complex, dynamic population of the elderly will need willing, capable registered nurses who are gerontological prepared and experienced, to prevent costly complications. The elderly are characterized by unique and require a variety of healthcare professionals to meet their healthcare needs. Registered nurses are at the head of generous care to the elderly. The care of elderly people as a speciality in nursing is growing and caring for

elderly people demands specific knowledge and abilities (King, Roberts, & Bowers, 2013).

Registered nurses are the primary health care professionals who provide direct care to elderly patients (Boltz et al., 2013). Registered nurses' knowledge and attitudes appear to affect their willingness to work with the elderly as well as the quality of care provided to them. The need for registered nurses with right and positive attitudes, knowledgeable and skilful is a must as an increase of elderly population that associated with chronic illness as well as decrease physical functionality and increase in dependency (Faronbi, Adebowale, Faronbi, Musa, & Ayamolowo, 2017).

1.2 Problem Statement

The total population statistic in Hospital USM shown 250 elderly patients admitted in the medical ward and about 150 admitted in the surgical ward during the period of data collection. This statistic has been obtained from the Record Unit, HUSM. The increasing of the admission of elderly patients will increase the healthcare need in the care of elderly patients by nurses.

According to the previous study, the researcher reported that nurses that have a low level of knowledge would affect their way in delivering care toward the elderly. It reflected the way they perceive and interact with elderly patients and in how they implement nursing care (Celik, Kapucu, Tuna & Akkus, 2010).

One of the barriers in providing quality services to the elderly is negative attitudes which in turn adversely affect healthcare outcomes and decrease the efficiency of the services (Arani et al., 2017). The attitudes of the nurses toward elderly may change where it may influence by age, sex, education and family contact with the elderly. The attitudes of healthcare professionals directly influence the quality of health care services provided to the elderly. According to the previous study, the researchers reported that negative attitudes and misconceptions by registered nurses with 63% of elderly patients expressing unmet healthcare need toward the healthcare provider (Faronbi et al., 2017, Eltantawy, 2013).

However, negative attitudes and myths towards the elderly are universal. Not all negative attitudes lead to ageism (Nelson, 2005) and associated stereotyping and discrimination but negative attitudes are a precursor to ageism. Many factors that related and influence the attitude in delivering care on the elderly. According to the previous study, researchers identify that there is a lack of educational training in courses education

on elderly among nurses that result in poor knowledge and negative attitude toward elderly (Ferreira & Ruiz, 2012). Lui and Wong (2009) reported that healthcare professionals with previous exposure to geriatric courses had enhanced knowledge, attitudes and experiences in elderly care. Another study revealed that working experience would be possible to improve frequent contact between nurses and elderly patients to enhance their attitudes toward the elderly. In contrast, some researchers identify that there is no association attitude on elderly between nurses with more or less than five years experience (Asayesh et al., 2014).

According to the UK Car Quality Commission report (Care Quality Commision, 2011) identified the nurses' attitudes with unacceptably low care standards with negative attitude for elderly in one in five UK hospitals related to low knowledge in care on elderly. Another study revealed that placing elderly patients at risk may happen due to poor knowledge of elderly care and unable to modify care accordingly (Daniel, 2006).

However, based on the literature review shows that limited quantitative study exists that focusing on the level of knowledge and attitude toward the elderly among registered nurses, particularly in Malaysia. Therefore, the objective of this study is to determine the level of knowledge, attitude and associated factors toward the elderly among registered nurses in Hospital USM.

1.3 Research Objectives

1.3.1 General Objective

The general objective of the study is to determine the level of knowledge and attitude toward the elderly among registered nurses in Hospital USM.

1.3.2 Specific Objectives

I.   To identify the level of knowledge towards the elderly among registered nurses in Hospital USM.

II. To identify the level of attitude towards the elderly among registered nurses in Hospital USM.

III. To determine the association between selected demographic variables (courses education on elderly and working experiences) with the level of attitude toward the elderly among registered nurses in Hospital USM.

IV. To determine the association between the level of knowledge and the level of attitude toward the elderly among registered nurses in Hospital USM.

1.4 Research Questions

I.   What is the level of knowledge toward the elderly among registered nurses in Hospital USM?

II. What is the level of attitude toward the elderly among registered nurses in Hospital USM?

III. Is there any association between selected demographic variables (courses education on elderly and working experiences) with the level of attitude toward the elderly among registered nurses in Hospital USM?

IV.   Is there any association between the level of knowledge and the level of attitude toward the elderly among registered nurses in Hospital USM?

1.5 Research Hypothesis

H_{O1}: There is no significant association between selected demographic variables (courses education on elderly and working experiences) with the level of knowledge toward elderly among registered nurses in Hospital USM.

H_{A1}: There is a significant association between selected demographic variables (courses education on elderly and working experiences) with the level of knowledge toward elderly among registered nurses in Hospital USM.

H_{O3}: There is no significant association between the level of knowledge and the level of attitude toward elderly among registered nurses in Hospital USM.

H_{A3}: There is a significant association between the level of knowledge and the level of attitude toward elderly among registered nurses in Hospital USM.

1.6 Definition of Operational Terms

1) **Knowledge**

The information and skills acquired through experience or education (Dictionary, 2012). In this research, knowledge is related to registered nurses' knowledge toward the elderly to measure basic knowledge of physical, mental, and social facts about elderly as well as common misconceptions (Palmore, 1999).

2) **Attitude**

The options and feelings that you usually have about something; the way that you behave towards someone or in a particular situation especially when this shows how you feel (Dictionary, 2012). In this research, the attitude is related to registered nurses' attitudes towards the elderly in indicating a positive or negative attitude toward the elderly (Hilt & Lipschultz, 1997).

3) **Elderly**

World Health Organization defined elderly as those aged 60 or above that equivalent to retirement ages in most of the developed countries (World Health Organization, 2016). However, the age of the elderly actually is different depending on the policies in each country itself. Malaysia approved the aged elderly of 60 years old as recommended by the Ministry of Health Malaysia as well as agreed in the World Assembly on Elderly at Vienna in 1982. In this study, the researcher defined elderly clients as 60 years old and above that admitted in the medical and surgical ward (7 Selatan, 7 Utara, 3 Utara, 2 Intan and 1 Selatan).

1.7 Significance of the Study

With the increasing elderly population and associated chronic illness as well as decrease physical functionality and increase in dependency, the need for registered nurses with the right attitude, adequate knowledge and skill will also be on the increase. The findings and benefits of this study by identifying the level of knowledge and attitude toward elderly among nurse is to promote and enhance producing of registered nurses that more knowledgeable, skilful and willing to work with elderly with complex health care problems in a variety of settings. The increasing number of registered nurses required to provide competent care toward elderly with an increased number of elderly populations with approximately 50% of the patients has admitted in the hospitals and care centres is over 65 years of age a few years ago (Ironside, Tagliareni, McLaughin, King, & Mengel, 2010).

Next is by determine the association between selected demographic and level of attitude among registered nurses toward elderly in Hospital USM is to identify the most significant factors that influence the level of attitude among registered nurses toward elderly that will increase the understanding and prevent misconception about elderly (Palmore, 1999).

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This literature review is to summarize research that has been done on the subject. The aim is to gain an understanding of the level of knowledge and attitude toward the elderly among registered nurses. This literature review will cover the nurse's knowledge toward the elderly, attitude toward the elderly, association between knowledge and attitude and measurement of knowledge and attitude toward the elderly. Finally, the conceptual framework for this study is presented.

2.2 Overview of elderly

The overview of the elderly comprises of definition and prevalence, the elderly process and elderly care.

2.2.1 Definition and prevalence of elderly

World Health Organization defined elderly as those aged 60 or above that equivalent to retirement ages in most of the developed countries (World Health Organization, 2016). According to a statement by Malaysia's Chief Statistician in July 2019, the 15 percent threshold would be crossed in 2030. The prevalence of the elderly on the average age of the Malaysian population was estimated to reach 34.1 years in 2030, up from 28.2 years in 2015. The number of elderly aged 65 years and above has increased gradually in Malaysia since the 1970s. It may be increasing the triple number from 2.0 million today to 6.0 million by 2040. Although much smaller in total size, the number of people ages 80 years and over is projected to grow more than four folds from 0.3 million today to nearly 1.4 million by 2040 (Statista, 2019).

2.2.2 Elderly process

The elderly process is a natural process that gives changing in the body physiologically and psychologically and this process is experienced by all organisms. A decreasing number of children and young people with an increasing number of the population more than 65 years also refers to elderly. As the elderly population is growing worldwide, there is a decline in the physical function and the person becomes susceptible to both acute and chronic health problems. It makes them frequent users of health care services. Many patients present with multiple co-morbid conditions which may be exacerbated by the confusion and anxiety of hospitalization. Elderly patients have age-specific, complex and multifaceted needs. They are affected in unique ways by the combined effects of the elderly process, the disease process and the environment, which challenge their sense of self and influence their perception of the quality of life (Alipour, Sajadi, Forouzan, & Biglarian, 2009).

The elderly process will make people being susceptible to diseases and illness and it is not the same as ill-health. Almost 75 percent of the world's burden or diseases affect elderly aged 60 years and above. One of the visible changes that take place as age increases are changes in the skin. Elderly process signs on the skin can be classified into four which are wrinkles, vascular disorders, pigmentation heterogeneities, and lack of firmness of cutaneous tissue (Flament et al., 2013). Elderly tend to lose significant body weight as their age increases, due to the loss of lean mass and a central adiposity shift (Santanasto et al., 2017). Also, elderly often suffer the loss of strength caused by muscle weakness, which often causes falls arising from difficulty to maintain balance or to recover balance (Kadono & Pavol, 2013).

It is also documented that two-thirds of elderly aged 70 years and above in the United States of America (USA) suffer from loss of hearing. Loss of hearing was

described as "the most common sensory deficit in the elderly which can amount to an inability to pass vital information, loneliness and frustration". Loss of hearing was associated with decreased quality of life, and lower physical and cognitive function. Age-related changes often affect the structures of the middle ear which means it needs a higher threshold of sound for the sound to be perceived (Bainbridge & Wallhagen, 2014). Contrary to some beliefs, hearing loss was found to be independent of cognitive decline or cognitive impairment (Lin et al., 2013). Moreover, there is a general decline in the recovery rate of the elderly when they fall ill as compared to younger ones (Mitnitski, Song, & Rockwood, 2013). The recovery time is dependent on the age of the patient, which includes recovery rates of subclinical tissues, subcellular and cellular damages (Howlett & Rockwood, 2013).

In conclusion, as the increase of the elderly age, it increases the health problems that frequently happen toward the elderly (Doherty, Mitchell, & O'Neill, 2016). Due to this illness, the elderly need hospitalization in health care services, where they are cared for by registered nurses and other health care providers. In some situations, the elderly may require full-time care, preferring to receive in-home cared for instead of institutional care.

2.2.3 Registered nurses and elderly care

Eldercare often referred to as senior care, is specialized care that is designed to meet the needs and requirements of senior citizens at many stages. Usually elderly need people to assist them in basic Activities Daily Livings (ADLs) such as self-feeding, mobility (moving while performing activities, getting in and out of bed, in and out of a chair), dressing, bathing or showering, personal hygiene (includes brushing, styling hair, shaving, grooming activities) and toilet hygiene (includes getting to the toilet, self-cleaning, getting up from the toilet). The elderly need nursing care which should be

provided by a nurse who is knowledgeable, competent, proactive, respectful and positively motivated about caring for the elderly.

The main objectives of providing nursing care to the elderly are to promote and maintain an optimum level of health and function, identify health problems at an early phase. Next is to avoid worsening of a current disease condition and to avoid further complications. The organized framework through which the nurse delivers care involves assessing, identification of needs, planning, implementing and evaluating nursing care. While providing care to elderly persons, registered nurses should be aware of the possible complications of the disease and the treatment as well. They need to assess the patient's physical, mental and cognitive skills, understand their acute and chronic health issues and the common health concerns, such as falls, incontinence and changing sleep patterns. Various functions of registered nurses that can contribute to the optimum health and overall wellbeing of the elderly include supportive, restorative, educative, life-enhancing and managerial.

2.3 Registered Nurses' Knowledge toward Elderly

Knowledge is the information and skills acquired through experience or education (Dictionary, 2012). In this research, knowledge is related to registered nurses' knowledge toward the elderly.

The previous study in other countries conducted by Elebiary (2018) shows that 65% of the respondents among registered nurses in Hospital in Saudi Arabia indicate that generally, the registered nurses have relatively good knowledge about ageing and care of elderly people. This could be explained that they believed knowledge on nursing education has a significant role in cultivating a positive attitude toward the elderly and influence their work preferences (Elebiary, 2018).

Similarly study in Nigeria conducted by Faronbi (2017) shows that 60% and 71.8% of respondents had good knowledge and attitudes towards the care of the elderly, respectively. They recognized the causes and prevention of complications when providing care to the elderly that will improve the well-being of the elderly. The complexity of caring for the elderly and the necessity of special knowledge and specialization in this field is recognized by the majority of respondents (Faronbi et al., 2017). This good knowledge displayed by respondents supports the findings of Naylor et al., (2004) which revealed that their respondents possessed a reasonable knowledge about the care of the elderly. However, contrasts with the findings of Eltantawy (2013), Montejo, Montenegro, Fernandez, and Maestu (2011) which showed that their respondents lack good knowledge of ageing and the elderly. One of the factors responsible for the good knowledge of respondents on elderly process recorded in this study might be related to sampling.

2.4 Registered Nurses' Attitude toward the Elderly

The definition of attitude is a "tendency of psychological to express some degree of favour or disfavour in evaluating a particular thing" (Eagly & Chaiken, 1993). Attitude plays a crucial role in influencing nursing professionals to work with elderly (Faronbi et al., 2017). Registered nurses can experience both positive and negative attitudes toward the elderly.

Based on the previous study in Saudi Arabia conducted by Elebiary (2018) shows that 65% of respondents had a positive attitude toward the elderly. This could be explained by the fact that majority of the participants in the present study were female, and females, especially in the Arab and Islam situations, are the basis of taking care for each and every member of the family and have also been shown to be more positive attitudes toward care on elderly people than males. Another thing is that the culture of

family is still important in Saudi Arabia, and this increases the relationship between the family members (Elebiary, 2018).

Another previous study in Nigeria conducted by Faronbi (2017) shows that 71.8% of respondents had a positive attitude towards the care of elderly. Respondents believe that registered nurses should be patient, cheerful and sensitive (97.2%); as well as empathetic (91.4%) when caring for the elderly. Although 78.2% of the respondents believe that working in the care of elders is interesting, 66.8% agree that it is easier to talk with younger people. The majority (89.3%) of the respondents are opposed to discrimination of elderly and 86.1% believed it would be fulfilling to specialize in caring for the elderly. It might be due to the influence of professional development and expectation on them (Faronbi et al., 2017).

The previous study in Iran conducted by Arani (2017) shows contrast finding where more than half of the nurses, 53.4% had a negative attitude towards elderly. This can be explained by many factors influence the attitude toward elderly. For example, this study indicated married nurses show positive attitude toward elderly. The high level of commitments toward parent and parent in law lead the nurses for being more responsible in taking care of them (Arani et al., 2017).

2.4.1 Factor Influencing Registered Nurses Attitudes towards the elderly

There are many demographic factors that affect the level of attitude towards the elderly. Firstly is gender. The gender of registered nurses has also been found to be a valid factor that could influence their attitude towards elderly. Many researchers found female nurses to have a more positive attitude towards elderly compared to their male counterparts (Deltsidou, Gesouli, Mastrogiannis, Mantzorou, & Noula, 2010). Another study revealed a significant association between gender and attitudes toward the elderly.

We found higher positive attitudes in males rather than in females toward caring for elderly patients. Negative attitudes toward the elderly will give effect in their surroundings, who in turn may feel free to respond negatively to or ignore elderly people (Eltantawy, 2013).

Second is marital status. Some studies indicated that married registered nurses had higher positive attitudes toward the elderly than those who were single. This is because married registered nurses have a high level of commitment and life experience toward elderly parents and parents in law. (Mansouri Arani, Aazami, Azami, & Borji, 2017). An experienced nurse that was married has a positive attitude toward caring for an elderly patient (McKinlay & Cowan, 2003).

The third is the level of education. The previous study shows a significant difference between the level of education and attitudes toward the elderly (Asayesh et al., 2014). A possible explanation for this difference could be the homogeneity of the study sample, where the majority of registered nurses participated in this study had bachelor's degrees and the study show that registered nurses with bachelor degree have high knowledge and attitude toward elderly.

Fourth is the ward. Findings from the current study showed a significant difference in registered nurses' attitudes toward the elderly between those who work in medical and surgical wards. The study findings showed that registered nurses working in medical wards had higher attitude scores than those working in surgical wards. Lui and Wong (2009) reported that doctors with previous exposure to elderly medicine residency had enhanced knowledge, attitudes, and experience in elderly care. Frequent exposure to elderly and internal medicine wards may positively influence registered nurses' attitudes toward the elderly (Lui & Wong, 2009).

2.4.1 (a) Working experience and registered nurses attitude toward elderly

The previous studies showed a significant and direct association between attitudes toward the elderly and age as well as work experiences (Koushali, Hajiamini, & Ebadi, 2012). However, Asayesh et al., (2014) and Lui and Wong, (2009) studies on general physicians revealed no significant difference between work experiences and attitudes toward the elderly. A possible explanation for the different attitudes between registered nurses and physicians could be the frequent contact of registered nurses with their patients, which in turn enhances their attitudes. Contact with elderly, especially living with an elderly, is known to influence attitudes in many studies. McCracken et al., (1995) and Hope (1994) found a positive relationship between previous experiences with the elderly and nurse's attitudes. Hope (1994) suggests that the length of exposure to elderly correlates positively with registered nurses' attitudes to the elderly (Hope, 1994).

More working experiences with patients creates a positive attitude among registered nurses. Hence, increasing work experiences promote positive attitudes toward the elderly among registered nurses (Courts, Barba, & Tesh, 2001). It was found that senior registered nurses scored more positively attitude than younger registered nurses. However, Taylor and Harned (1978) indicate that age is not an issue as the study finding shown that the less experienced with the elderly, the more positive the attitude (Taylor & Harned, 1978).

Based on one previous study in Iran conducted by Arani (2017) among registered nurses working in the city of Ilam, Iran shows 45.7% of the respondents indicate a positive attitude and 56.3% indicate negative attitude toward elderly. The significant difference was observed between attitude and working experience ($p < 0.001$). Increasing work experience promote positive attitudes toward elderly among registered nurses (Arani et al., 2017).

In Malaysia, there's no previous study on attitude done among the registered nurses. This is one of the reasons why the present study focuses on registered nurses to assess the level of knowledge and attitude among registered nurses and promoting high knowledge and a positive attitude toward them.

2.4.1 (b) Elderly course and registered nurses' attitude toward the elderly

Interestingly, registered nurses who took courses on elderly care had more positive attitudes toward the elderly, thereby confirming the essential role of education in promoting registered nurses' opinions toward seniors. Registered nurse's attitude toward the elderly is either in a positively or negatively way that they will deliver to them (Kim et al., 2004). Some of the registered nurses have a lack of educational training toward elderly over the years that have been stated by researchers. Negative attitudes and misconceptions by registered nurses with 63% of elderly patients expressing unmet healthcare need toward the healthcare provider (Faronbi et al., 2017, Eltantawy, 2013). This can lead to a situation where elderly people developing a negative view of registered nurses and nursing services in health care settings. Negative views toward care on elderly may result in an elderly people's reluctance or failure to seek out healthcare services (King et al., 2013 & Alsenany, 2009).

Other studies have demonstrated a benefit for early gerontology knowledge into nursing course to improve knowledge and promote more positive attitudes towards the elderly. Increased knowledge of gerontological nursing is necessary to provide the essential leadership and skills requisite to elevating the status of nursing in long-term care. It importance in caring for the elderly as gerontology is the most neglected area of curriculum development in nursing. Formal educational preparation of registered nurses for gerontological nursing has been deficient in both quality and quantity (Fitgerald, Wray, Halter, Williams, & Supiano, 2003).

Based on one previous study in Iran conducted by Arani (2017) among registered nurses working in the city of Ilam, Iran shows 45.7% of the respondents indicate a positive attitude and 56.3% indicate negative attitude toward elderly. A significant difference was observed between attitude and course education on elderly ($p < 0.001$). Interestingly, registered nurses who took courses on elderly care had more positive attitudes toward the elderly, thereby confirming the essential role of education in promoting registered nurses' opinions toward seniors. By increasing knowledge of gerontological education, it will indicate the positive attitude toward the elderly. It is because the knowledge promotes more understanding toward the elderly (Arani et al., 2017).

In Malaysia, there's no previous study on registered nurses. This is also one of the reasons the present study focuses on registered nurses to determine the elderly course associated with the level of nurse's attitude toward elderly care.

2.5 Association between knowledge and attitude toward elderly among registered nurses

In nursing research, education has been identified as relating to registered nurses' attitudes toward the elderly. Some of the researchers state that registered nurses' knowledge and attitudes of elderly influence their ways of care for elderly people whether it will give a positive or negative quality of care toward the elderly. Study findings in Saudi Arabia indicate that registered nurses in general, have relatively positive knowledge and attitude levels about elderly. These results findings correspond to other studies that measured the knowledge and attitude of nurses that give the same result that knowledge and attitude have a connection between each other (Bleijenberg et al., 2012, Oyetunde et al., 2013 & Eltantawy, 2013).

As knowledge increases, the attitude became more positive. This could be explained by the fact in another study that majority of the participants in the present study were female, and females especially in the Arab and Islam situations, are the basis of taking care for every member of the family and have also been shown to be more positive attitudes toward elderly people than males. Besides, the number (male vs females) in the current study was not equivalent, so statistically, no comparison was made. Another thing is that the culture of the extended family is still predominant in Saudi Arabia, and this increases the bond amongst the family members. These findings contra verse with other studies who reported that registered nurses have a negative attitude towards the care of the elderly even though they displayed a good knowledge of elderly (Oyetunde et al., 2013).

Meanwhile, Smith, Jepson, and Perloff (1982) reported that nursing personnel of all levels demonstrate a lack of interest in elderly and usually have very little knowledge about the elderly patient. It is the concern for the quality of nursing care that has created an increased interest in measuring attitudes toward the elderly and altering negative attitudes by providing learning opportunities for nurses and various levels of nursing personnel. Assuming health professions hold attitudes that influence interactions with the elderly and that age prejudice does exist, attitudes toward the elderly are important in the education of registered nurses to meet the multiple and growing needs of this population. This negative attitude may be associated with a lack of knowledge of elderly (Faronbi et al., 2017)

Based on the previous study in Saudi Arabia conducted by Elebiary (2018), 65% of the respondents show high knowledge and positive attitude toward the elderly. The study findings indicate that generally, the registered nurses have a relatively good knowledge level about ageing and care of elderly people. Registered nurses provide a

higher percentage of contact and health care services to the elderly. Therefore, it is serious that the educational system in Saudi Arabia produces competent nursing professionals who can deliver high-quality elderly care. This study conducted to investigate registered nurses' knowledge and attitudes towards elderly people (Elebiary, 2018). These findings correspond to other studies that measured the knowledge of nurses as revealed that nursing education has a significant role in cultivating positive attitudes toward elderly people (Bleijenberg et al., 2012, Oyetunde et al., 2013 & Eltantawy, 2013).

Another previous study in Nigeria conducted by Faronbi et al., (2017) that 60 % and 71.8% of respondents had good knowledge and attitudes towards the care of the elderly, respectively. Generally, most of the respondents have good knowledge about the care of the elderly. They recognized the causes and prevention of complications when providing care to elderly. This they viewed will improve the well-being of the elderly. The complexity of caring for elderly and the necessity of special knowledge and specialization in this field is recognized by the majority of respondents (Faronbi et al., 2017). This good knowledge displayed by respondents revealed that their respondents possessed a reasonable knowledge about the care of the elderly (Naylor et al., 2004). This is, however, contrasts with the findings of Eltantawy (2013), Montejo, Montenegro, Fernandez, and Maestu (2011) which showed that their respondents lack good knowledge of ageing and the elderly.

In conclusion, according to King et al., (2013), nursing education institutions have an important role in changing attitudes of the nurses toward elderly people and influencing their work preferences. As knowledge increases, the attitude became more positive (Elebiary, 2018).

2.6 Measurement of knowledge and attitude toward elderly

In this study, Facts on Aging Quiz 1 (FAQ1) has been used to measure the knowledge toward elderly among registered nurses. In 1977, Palmore built the first Facts on Aging Quiz 1 (FAQ1) in order to increase nurses' attention to the topic of ageing and to provide a short objective test on the subject. In the following decades, FAQ1 became ''the international standard for measuring knowledge and misconceptions about ageing'' (Palmore, 1988, p. 75). After the broad acceptance of this first quiz, Palmore (1981b) produced a second Facts on Aging Quiz 2 (FAQ2) ''to be used either in a test-retest situation or as an additional test of knowledge and misconceptions about ageing'' (Palmore, 1988, pp. 75). The quizzes were designed to measure basic knowledge of physical, mental, and social facts about old age and ageing as well as common misconceptions (Palmore, 1977, 1981b, 1988).

In the earlier study by Palmore (1988), Revised Kogan's Attitude toward Old People (RKAOP) has been used to measure the level of attitude toward the elderly among registered nurses. Hiltz & Lipschultz constructed RKAOP in 1997. Use of the Kogan Attitudes toward Old People Scale (1961) has increased in recent gerontological research. Criticism of the scale, however, has also increased. A recent study of television general managers and news directors (Hilt & Lipschultz, 1997) found limitations to the usefulness of the Kogan scale. Respondents complained about the length of the scale (34 statements) and the transparency of the items.

The Kogan Attitudes Toward Old People Scale (1961) was revised and used to measure local television news producer attitudes toward elderly people. The importance of local television news in the lives of the elderly makes the study of producers' attitudes relevant. A national mail survey of producers found that, whereas there were few elderly news producers, as a group they had positive attitudes toward the elderly.

The study successfully reduced the Kogan scale from 34 to 22 items without altering the overall response pattern. This questionnaire was adapted from Hiltz & Lipschultz (1997). The original Kogan (1961) attitude toward the elderly consists of 34 statements that include 17 positive statements and 17 negative statements. The six-point scale ranging from strongly agree to strongly disagree. In this RKAOP, the number of the statements has been reduced to 22 statements and 17 statements score were reversed. This questionnaire used seven Likert-type scale (1-strongly disagree to 7-strongly agree). Blank statements are assigned a score of 4. A high score indicated a positive attitude toward elderly.

2.7 Conceptual Framework

The Theory of Planned Behavior has been tested and applied to a multitude of studies that examined attitudes towards behaviour, subjective norms, and internal variables over the years since it was first created by Ajzen in 1991 (McKinlay & Cowan, 2003). The Theory of Planned Behavior (TPB) is based upon two main assumptions: "1) that human beings are rational and make systematic use of information available to them; 2) people consider the effects of their actions before they decide whether to involve in certain behaviors" (Clark & Paraska, 2014, p. 55).

TPB further suggests that behavior is governed by intent, which is a combination of one's attitude as to whether performing the behavior will result in a positive or negative outcome, and one's motivation to meet the perceived expectation of others (Ajzen & Fishbein, 2011). Determinants of intention are the attitude towards behavior, subjective norms, and external variables. Ajzen and Fishbein (2005) describe "attitude towards the behavior" as a function of beliefs that lead to certain outcomes. A person's motivation to meet the perceived expectations of others is known as a "subjective norm", and such personality traits, attitudes toward people or institutions, and demographic variables that may influence intentions or behavior indirectly, are known as "external variables". This information leads to the formulation of the behavioral model guiding the study.