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Curriculum, Theory and Practice: Exploring Nurses' and Nursing Students' Knowledge of, Attitudes Towards and Self- Efficacy in Caring for The Elderly in Canada

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A thesis submitted in partial fulfillment of the requirements for the Master of Education degree in Education

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KNOWLEDGE AND ATTITUDES OF NURSING STUDENTS AND NURSES

Abstract

This study explores nurses' and nursing students' knowledge, attitudes, and self-efficacy in caring for the elderly, and addresses the factors contributing to nurses' perspectives. It also examines the nursing curriculum's contributions to nurses' knowledge, attitudes, and self-efficacy and provides suggestions to reconfigure the nursing curriculum for comprehensive geriatric nursing care. A mixed-method research design was used to address the purpose of the study. The results revealed that most nurses possess neutral attitudes toward caring for geriatric patients, and their knowledge ranged from average to above-average levels; most nurses had an above-average level of self-efficacy. Results also showed a statistically significant positive correlation between nurses' attitudes and knowledge level and between self-efficacy and knowledge level. Similarly, there was a statistically significant positive correlation between nurses' attitudes and self-efficacy and between self-efficacy and years of experience. This study demonstrated the positive impact of the Canadian nursing curriculum on nurses' knowledge, attitudes, and self-efficacy.

Keywords: geriatric population, seniors and aging statistics, nursing curriculum, nurses' attitudes, nurses' self-efficacy, nurses' knowledge level, geriatric nursing care, curriculum reform, curriculum development, contribution of nursing curriculum

KNOWLEDGE AND ATTITUDES OF NURSING STUDENTS AND NURSES

Summary for Lay Audience

The study focused on examining the knowledge, attitudes, and self-efficacy of nursing students and nurses toward caring for Canada's geriatric population. It also explored the impact of nursing curricula on nurses' and nursing students' knowledge, attitudes, and self-efficacy. Quantitative and qualitative data were collected via online surveys to address this research inquiry. Study findings revealed that most nurses and nursing students possess neutral attitudes, average knowledge level, and above-average self-efficacy, and there was a positive correlation among attitudes, knowledge, and self-efficacy of nurses and nursing students. There are no statistically significant differences were found between nurses' attitudes and their demographic data. The study found that most study participants reported that the nursing curriculum positively impacted their knowledge, attitudes, and self-efficacy in providing them with the required knowledge and skills. Study findings recognized some of the influencers affecting nurses' attitudes; therefore, future research is needed to explore more factors that influence nurses' and nursing students' attitudes and understanding toward geriatric care. The research enriches the existent literature about the Canadian nursing curriculum's influences on the nurses' and nursing students' attitudes, self-efficacy, and knowledge. The current study recommends providing geriatrics nursing courses as a mandatory separate course in nursing education to enhance nursing students' knowledge and skills for high-quality geriatric nursing care.

KNOWLEDGE AND ATTITUDES OF NURSING STUDENTS AND NURSES

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Chapter I: Introduction

Individuals' life expectancy is increasing due to medical advances and lifestyle improvements. Mather et al. (2019) indicated that the American population, aged 65 and older, is expected to nearly double from 52 million in 2018 to 95 million by 2060, and the proportion of the total population in the 65-and-older age group will increase from 16% to 23%. The World Health Organization [WHO] (2018) also indicated that from the year 2015 to 2050, people are and will continue to age throughout the world, and the percentage of people over 60 years of age will increase from 12% to 22%. Similarly, the Canadian Institute for Health Information (2017) reported that the older seniors who are 75 years old and older are rising at a faster rate. Over the last 40 years, Canadians have increased in numbers as the population of seniors grew from around 2 million to 3.5 million between 1977 and 1997. In 2017 it stood at about 6.2 million and was expected to reach 10.4 million by 2037. According to the Organization for Economic Co-operation and Development [OECD], the average life span for people at age 65 in the United Kingdom, Australia, and Canada is between 84 and 86 years old (Beckman, 2016). Geriatrics is the medical care provided elderly individuals over the age of 65 years old (Besdine, 2019). As the geriatric population increase, these individuals can present with numerous health problems (Vann, 2016). Nurses have been described as the primary health care resource ideally prepared to fulfill the demands of an aging population on the health care system (King et al., 2013).

According to the literature, caring for the geriatric population is among the most challenging issue of public health and social care systems in modern societies. For example, Liu et al. (2012) reported that nurses view the elderly as a burden, as they found elderly care annoying. Dikken et al. (2017) asserted that nurses have a negative attitude towards

older patients. Also, King et al. (2013) claimed that new studies found that even in situations where nursing graduates have positive attitudes, they usually tend not to deal with geriatric patients; as a result, there is a severe lack of caregivers with experience in geriatric care. Consequently, the geriatric population may suffer from different forms of discrimination from society in general, and in particular, from the health care sector.

It is noteworthy to mention that the literature did not mention the leading causes behind this discrimination and negative attitude towards older patients among health care providers. Rush et al. (2017) affirmed that nurses' attitudes towards geriatric nursing care are complex and contradictory, and more research on the attitudes of nurses are required to establish a solid evidence base. They also added that a review of studies on the attitude of nurses toward caring for the elderly is essential for identifying the needs of nursing staff and improving the quality of care. As well, Dikken et al. (2017) argued that "identifying positive and negative attitudes toward older patients is very important to improve the quality of care provided to them" (p. 6). Liu et al. (2012) contended that healthcare practitioners' attitudes influence the standard of care provided. In summary, Rush et al. (2017) identified education, knowledge, experience, workplace, and demographics as factors impacting nurses' attitudes. Therefore, it is essential to address nurses' attitudes toward elderly individuals and factors influencing their attitudes, along with emphasizing the importance of caring for geriatric patients and the significance of reforming the nursing curriculum.

Scope, Context, and Purpose

From my experience as an instructor in the nursing field, I observed that elderly patients are neglected by nursing students, and it is obvious that nursing students experience challenges regarding understanding geriatric needs or providing nursing care for them. After reviewing the literature, I found that there is scant research addressing the attitudes of nursing students and nurses toward caring for elderly patients in Canada. Similarly, there is a gap in the literature regarding the causes of negative attitudes of nursing students toward caring for geriatric patients. In order to address this gap, I adopted a mixed- method research design to conduct an in-depth study of nurses in practice, as well as nursing students' attitude towards, and knowledge, opinions, and views of caring for the elderly.

The context behind this research is my belief that geriatrics individuals are significant in numbers worldwide as they are the backbone of our communities, hence it is necessary to take into consideration their care and wellness. It is also important to acknowledge the geriatric population as well as to maintain their well-being, treat them for chronic conditions, and protect them from disease complications. Geriatric individuals need more love, attention, and understanding of their feelings and needs, as they become weak, fragile, and sick due to the aging process (Big Hearts, 2017). It is also vital for healthcare professionals to protect the elderly from the feeling of loneliness, anxiety, and depression by providing them with comprehensive medical and nursing care and ensuring the quality of care provided to them (Western Cape Government, 2019).

Therefore, the purpose of the study is to explore the knowledge, skills, attitude, opinions, and self-efficacy of nursing students and practicing nurses toward caring for geriatric patients, and addressing the factors contributing to their attitudes. I also explore

the nursing curricula knowledge and skills deficits, recognizing the essential academic requirements of nursing students, and finally providing suggestions aimed at reconfiguring the nursing curriculum based on the requisite knowledge and skills for comprehensive geriatric nursing care.

Statement of Problem

The leading concerns explored in this study are the knowledge and attitude of nurses and nursing students as nurses' knowledge and attitude may reflect the quality of nursing care provided to geriatric patients. Thus, this research is dedicated to exploring the opinions and attitude of nursing students and nurses toward caring for geriatric patients. It will also identify relationships between knowledge, self-efficacy, and the attitude of nurses and nursing students toward caring for geriatric patients.

Researcher Positionality

I believe that the aging process is a normal stage in our lives. All of us will arrive at this stage; hence we need individuals who are knowledgeable, skillful, and compassionate to take care of us at this time. From my working experience as a nurse with geriatric patients and nursing educator, I noticed that geriatric individuals are the most vulnerable group in our communities. I feel compassion for these patients, and I enjoy providing care for them. I also encourage my nursing students to take care of them. However, I observed that most of my nursing students prefer to provide care to younger individuals instead of the elderly. Therefore, from my position as a researcher, I decided to address the attitude and opinion of nurses and nursing students regarding geriatric care. As well, if there is a difference between the attitude of nursing students and nurses in practice, I aspire to explore factors

impacting their attitude. I will analyze some of the Canadian nursing curriculums through participants' responses to the open-ended questions to identify gaps in knowledge and skills around geriatric care. Furthermore, I would like to provide recommendations for enhancing the nursing curriculum.

Research Questions

The following questions guided my research:

1. What are nurses and nursing students' attitudes toward caring for geriatric patients?
What are the reasons/influences for their attitudes?
2. What are nurses and nursing students' knowledge in terms of providing geriatric care?
3. What is the relationship between nurses' attitudes, knowledge, and self-efficacy in terms of caring for geriatric patients?
4. How has the nursing curriculum contributed to nurses' knowledge, attitudes, and self- efficacy in the care of geriatric patients?

Significance of the Study

Based on the examination of nurses and nursing students' knowledge of and attitudes towards caring for geriatric patients, as well as the underlying reasons behind their beliefs, my research has the potential to enhance nursing curriculum, and subsequently the nursing profession. For example, nursing educators and curriculum leaders may incorporate the findings to enhance nursing curriculum in terms of the necessary knowledge and skills related to the normal aging process, special needs, and health problems of the geriatric population. This will impact nursing students' qualifications to provide geriatric nursing care, as well as impact their self-confidence and self-efficacy, which could potentially have

a significant influence on their actions and attitudes towards elderly care. Thus, this research will increase the awareness of nursing curriculum developers and instructors about the academic requirements of nursing students and their attitudes toward geriatric care. As a result, this may improve geriatric nursing education and change the perceptions and views of nursing graduates, which can reflect positively in the quality of geriatric care.

Conceptual Framework

My study utilizes Bandura's (1977) self-efficacy theory. It is a social learning theory that explains human experience in terms of constant reciprocal contact between emotional, cognitive, behavioral, and social stimuli. Bandura's philosophy highlights the importance of observing and analyzing other people's behaviors, attitudes, and emotional responses (David, 2019). Bandura (1977) argued that self-efficacy is an essential concept in positive psychology and a crucial prerequisite for behavioral modification. Bandura (1994) defined it as "people's beliefs about their capabilities to produce designated levels of performance." He stated that self-efficacy beliefs describe how people feel, perceive, inspire, and act. In many ways, a strong sense of efficacy promotes human achievement and personal well-being because self-efficacy is linked to our sense of self-confidence or worth as a human being (Bandura, 1977). For instance, when individuals with high self-efficacy master a situation and produce a positive outcome, they can develop a sense of value, and as a result, they acquire a high sense of self-esteem. Bandura (1977) also argued that self-efficacy is the self-perceived ability to deal with difficult emotions, as it helps us manage our fears and tension. Akerman (2019) stated that self-efficacy is a natural protective factor against pressure, stress, and burnout at work, as high levels of work stress are strongly associated with subsequent burnout. Therefore, high self-efficacy acts as an effective barrier between

work stress and burnout. Based on the aforementioned, it is evident that self-efficacy influences our behaviors and beliefs, and high levels of self-efficacy can lead to positive behaviors and attitudes.

According to Bandura (as cited in Akhtar, 2008), mastery experiences, vicarious experiences or role modeling, verbal encouragement, and emotional states are the four primary sources of self-efficacy beliefs. Considering that mastery experiences encourage self-efficacy, then increased hands-on experience should lead to higher self-efficacy. For example, the more time nurses work in a clinical setting, the higher their confidence in their abilities to execute the work accurately. It is vital for nurses and other healthcare professionals to have a sense of self-efficacy in their ability to provide patients' nursing care that benefit the patients receiving care (Ackerman, 2019).

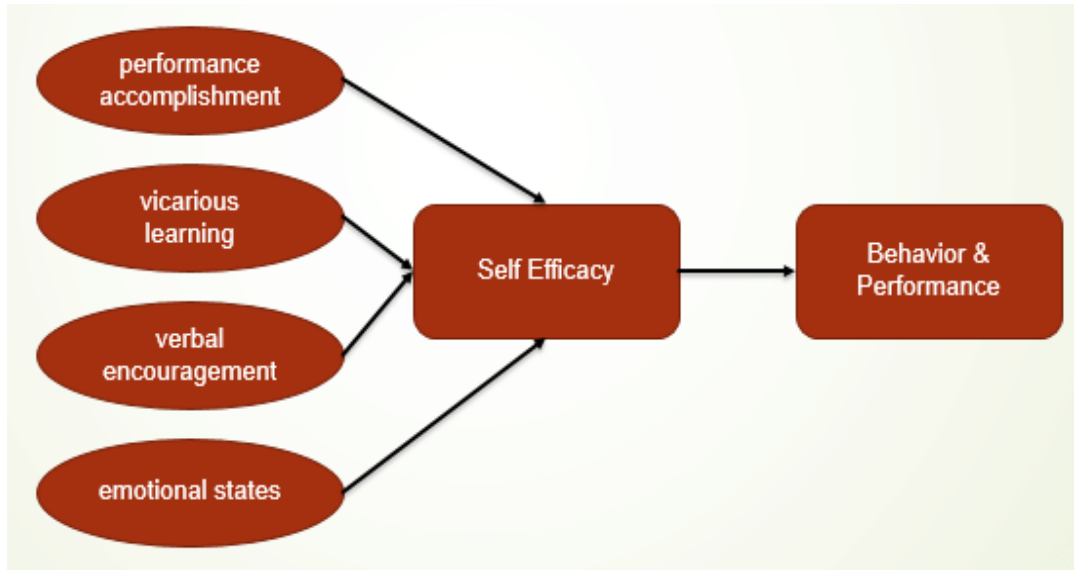
I believe that the self-efficacy theory is a relevant framework for my research study as it can help nursing educators plan out their instruction and support student learning. Through empowering nursing students, their self-confidence and self-efficacy will be increased. Consequently, they can control their behaviors and cope with stressful situations within the workplace and enhance their behaviors and attitudes toward caring for the geriatric population.

I trust that providing nursing students with the required skills and knowledge related to the geriatric population's care will promote their self-efficacy, and accordingly, these will positively influence their attitudes and behaviors toward the geriatric population. Therefore, the self-efficacy theory will be used as a framework for my assessment of nurses and nursing students' attitudes. I will follow the four main sources of self-efficacy beliefs – mastery experiences or performance accomplishment, role modeling or vicarious

learning, verbal encouragement, and emotional states – to identify gaps in the nursing curriculum (Figure1).

Figure 1

Bandura’s Self-Efficacy Theory, Including Four Beliefs



Note. Components of Bandura Self-Efficacy (adapted from Razzag et al., 2018).

Chapter II: Theoretical Overview and the Literature

Nursing is a unique profession; it is accompanied by mercy and compassion. Nursing care is not just about providing medication or therapy, but about the protection and enhancement of an individual's well-being (International Council of Nurses, 2002). Nurses have a vital role in caring for various categories of individuals in society as they provide care and support to children, adolescents, adults, and senior adults. In addition, the education of patients, families, and community is a nurse's primary function (International Council of Nurses, 2002). Deasey et al. (2014) contended that nurses play a crucial role in providing medical services for elderly patients with a supportive environment and positive outcomes.

Statistics Canada reported that Canadian seniors currently number 5.9 million, compared to 5.8 million citizens aged 14 or younger. By 2031, about 23 % of Canadians will be senior citizens. Furthermore, by 2061, Canada will have 12 million senior citizens (Grenier, 2017). The Canadian Institute for Health Information (2017) stated that the number of senior Canadian people aged 65 and over is projected to rise by 68 % in the next 20 years. The older seniors aged 75 or more are expected to increase dramatically in each province and territory between 2017 and 2037 (e.g., Ontario 2.1 times, Quebec 2.0 times, Alberta 2.8 times, Yukon 2.9 times, and British Columbia 2.1 times). In addition, the geriatric population 65 years of age and older is the fastest growing in Ontario, as by 2041, 25% of Ontario's population is expected to be 65 or older, almost increasing from 3 million seniors in 2016 to 4.6 million (Ministry for Seniors and Accessibility, 2017).

Furthermore, King et al. (2013) estimated that currently, individuals over 65 years of age comprise 65% of hospital patients and have four times the rate of hospitalizations

relative to many younger people. Also, 26% of all outpatient appointments and 38% of all emergency room admissions are geriatric, while the elderly register for 85% of home-care trips, and 90% of nursing home-use stays—this statistic is expected to rise as the population continues to grow. Deasey et al. (2014) maintain that as the geriatric population aged 65 and over is expected to increase from 14% to 20% by 2051, older adults will become the significant receivers of healthcare facilities. Furthermore, because of the effects of their illnesses, older people have more extended hospital stays and need more specialized and advanced healthcare services than younger individuals, thus bringing extra burden and challenges for nurses in an already overcrowded health care delivery system.

Additionally, the World Health Organization (WHO) (2017) reported that physical, neurological, and psychological diseases among geriatric population account for 6.6% of all illness in this age group and around 15% of the geriatric population aged 60 and over complain of a mental disability such as depression and dementia. Moreover, Vann (2016) affirmed that cerebral vascular stroke, hypertension, asthma, pneumonia, cardiovascular disorders, obesity, respiratory diseases, osteoporosis, Alzheimer's, influenza, and neurovascular disorders are the most common chronic health issues among the elderly. The WHO report (2017) stipulates that the well-being and mental health of the elderly is essential, similar for any other lifetime, and nurses should be aware of the health needs and health problems of the geriatric population.

Moreover, I believe that older people are the most vulnerable group in society and are at risk for multiple diseases, such as infectious diseases, especially at this time due to the Coronavirus disease (COVID-19) pandemic. WHO (2020) states that people 65 years of age or older are more likely to have a severe infection of COVID-19, as their immune

systems are changing with age, and it is more challenging to control pathogens and viruses. Therefore, older people are more likely to have chronic health problems such as acute pneumonia that make it more challenging to live with and recover. According to WHO (2020) and Centers for Disease Control and Prevention (CDC) (2020), individuals of all ages can be infected with the latest coronavirus (COVID-19) but, older patients and those with pre-existing medical problems such as asthma, hypertension, diabetes, and cardiac disease are most vulnerable to severe complication or death from the virus. As per recent Statistics Canada reports, Canadians aged 85 and up account for more than half of the excess deaths recorded during the COVID-19 pandemic (Neustaeter, 2020). Therefore, it is apparent that the elderly requires close monitoring for their health status to reduce the complexity of their chronic illness and to remain safe from communicable diseases (Vann, 2016).

As well, senior people need more health care facilities than younger patients, and all nurses must have professional knowledge related to caring for the elderly. According to Rush et al. (2017), well-prepared geriatric nurses are essential for providing high-quality care for elderly patients. Unfortunately, owing to a lack of awareness regarding the care of the elderly by instructors, students, and graduates in nursing programs, nursing care may be harmful rather than helpful. For example, some nurses state that they cannot apply knowledge from their program in their practice. It is imperative for nursing students to learn how to apply theory to practice and balance work and stress simultaneously. It is also essential to minimize their negative attitude and fears of geriatric nursing care (INSCOL, 2016).

Additionally, the geriatric population is considered the most significant health care consumers, but they are at high risk for isolation and depression because they may face

different forms of discrimination from the health care delivery system. There is a wide body of literature among health care providers recording negative attitudes towards elderly patients (Wyman et al., 2018). For instance, Wyman et al. (2018) revealed in their study that nursing students showed a common lack of interest in working with older adults. In other nursing research Wyman et al. (2018) observed that in addition to the communication quality, care provided to geriatric individuals is accompanied by undesirable attitudes against old age. To clarify, the nurses did not engage the elderly in their treatment plan, and nurses spoke in a patronizing tone when communicating with elderly patients. Congruently, Çelik et al., (2010) indicated that some Turkish nursing students have negative attitudes toward the elderly; however other students mentioned that they were sympathetic and treated older patients kindly while caring for them, but they had language barriers and relationship difficulties with them. Another study conducted in Iran confirmed that nurses practice negative attitudes toward geriatric patients at public hospitals in Ilam city (Arani et al., 2017).

Furthermore, healthcare workers were less likely to recall older patients' names or use a sense of humor with them as they do with younger adults. Deasey et al. (2014) argued that related to the aging process, elderly people may experience cognitive disability, reduced mental skills, decreased mobility, tiredness, lack of energy, and may be taking multiple medicines. Nurses have reported high levels of anxiety about caring for their elderly patients, mostly due to these factors. Gould et al. (2015) also revealed that nursing students had positive reactions to caring for older people, at least where there is no dementia, but they received a clear warning from their tutors that this form of nursing care is neither significant nor respected.

Similarly, Topaz and Doron (2013) revealed that nurses with supportive attitudes towards the elderly stated that they listen attentively, assist with compassion, and develop a friendly relationship with their patients. In comparison, nurses who display undesirable behaviors towards older people have indicated that they tend to interact with younger patients; but they discriminate against older patients in different ways. For example, they were more prone to disrespect the patient's rights, privacy, and dignity, along with physical restraints while caring for aged people. Topaz and Doron (2013) also argued that nurses' attitudes are changeable and vary from country to country. For instance, they discovered in their research that nurses' positive reactions toward geriatric care are reported by several researchers in the United States, Jordan, and Australia.

Nevertheless, negative attitudes toward the elderly were recorded in many hospitals in Sweden and Ireland. Deasey et al. (2014) revealed from their study that culture, religious, social structures, and the beliefs of individual nurses affect the care of geriatric patients. In certain cultures, such as Jordanian Muslims, younger individuals are taught how to respect and value the elderly, and this may have a positive influence on the attitudes of nurses towards geriatric patients. Through my experience as a nursing educator in Egypt, I observed that the Egyptian people love, value, and appreciate the senior adult and treat them with respect and kindness. While most nursing students are unable to deal with geriatric care due to a lack of geriatric nursing knowledge and experience, I believe that culture, beliefs, and many other factors can influence attitudes. To change the perception of nurses, nursing educators, and curriculum designers should recognize and target current attitudes. Therefore, it is essential to assess nurses' attitudes toward geriatric people to identify their perceptions and actions toward the geriatric population. In that way,

reforming the nursing curriculum can improve the standard of health care provided to the elderly.

Reforming Nursing Curriculum

Curriculum development has a broader perspective because it is not just about students, educators, and schools but also about the growth of the community (Mary, 2014). As the curriculum has a significant impact on students' academic performance, reforming nursing education by incorporating the requisite knowledge and skills specific to geriatric care and nurses' training is essential to improve nurses' beliefs and reduce ageism. By enhancing the nursing curriculum, nursing students will be qualified to provide geriatric care, and they will be acknowledging and working to eliminate ageism from the health care system (Wyman et al., 2018). Deasey et al. (2014) asserted that nurses' attitudes are strongly related to their perception of the aging process. Increased knowledge and understanding of nursing students about aging processes will help them identify deterioration in the elderly, deal with geriatric physical and psychological problems, and promote supportive attitudes towards older adults.

Additionally, Topaz and Doron (2013) also affirmed that nursing curricula should integrate information about healthy aging and prevent focusing mainly on age-based illnesses. Within our contemporary health care systems, increased aging awareness along with modern pedagogical approaches are required to enhance nursing students' knowledge, and perceptions toward geriatric care to reduce the ageism rate within the health care system and society. Based on Bandura's self-efficacy theory (1977), nursing instructors can inspire, encourage, and direct their students and empower them with the information and practices related to geriatric care through role modeling approaches. Deasey et al. (2014) claimed that supportive instructions, encouragement, feedback, and recommendations from nursing

educators about the practice of nursing students might increase their self-confidence, thus leading to positive geriatric care experiences. I trust that to decrease or avoid further deterioration in geriatric health status, nurses must be qualified with gerontological knowledge and skills. I firmly believe that nursing students should be trained to deal with geriatric health needs. According to Every Nurse (2019), geriatric nursing programs should provide nursing students with knowledge and skills that allow them to deal with stressful events such as patients' deaths and enable them to recover from depression quickly.

Likewise, the nursing profession's development is a primary aim of nursing education, and the nursing profession's enhancement depends on the advancement of nursing education (Carson-Newman University Online, 2018). Hence, reforming the nursing curriculum in general can improve nursing beliefs, in particular, and the nursing profession, in general. Assessment of nurses' attitudes may help to direct curriculum designers in developing nursing curricula to provide society with highly qualified nurses. Geriatric people are vulnerable and need more love and attention together with more knowledgeable and skillful healthcare providers.

Furthermore, reforming the nursing curriculum would stress the inclusion of information related to geriatric needs and the prevalent medical issues associated with this period of our lifespan, along with the usual signs and symptoms related to the aging process. Including more accurate details on all chronic diseases associated with the aging process, information about the pathophysiology, signs and symptoms, complications, medical treatment, and nursing role for all chronic diseases is warranted. I believe that this knowledge will enable nursing students to adapt and deal with the physical and psychological needs of the elderly in a meaningful manner. Similarly, by integrating this

knowledge into the nursing curriculum, nursing students' awareness of the risks of chronic diseases and how to address them, will increase.

Nevertheless, I believe that adding the requisite information is not enough to reform the nursing curriculum; it is not just content knowledge. Dillon (2009) claimed that the curriculum consists of multiple elements such as students, content, and pedagogy that educators and curriculum designers should consider and follow when developing a curriculum. Curriculum designers need to place the programmatic and implemented curriculum content into context to carefully bring the teaching-learning process to students' realities, including the cultural, historical, political, and geographical nature of the society. Dillon (2009) also stated that curriculum contextualization is essential, as contextualization of the curriculum connects all the elements which make up the curriculum, such as the content, pedagogy, teacher, student, milieu, activities, and students' evaluation methods. Thus, curriculum developers need to contextualize the three levels of the curriculum – institutional, programmatic, and implemented – because, without contextualization, the curriculum becomes challenging to understand. Contextualization helps students to apply concepts and skills they studied while engaging with geriatric patients. Mouraze and Leite (2013) asserted that the curriculum's contextualization allows teachers and students to connect theory to practice and give students meaning and value to what they learn in school.

Besides curriculum contextualization, I think the accountability of nursing instructors for students' performance is crucial. Tilley and Taylor (2013) contended that in the neo-liberal age, accountability and standardization are required for clearly understood curriculum conceptualizations such as text, ministry documents, and materials that teachers are responsible for implementing. Moreover, from my perspective, nursing students should

also learn about social justice, human rights, and the disadvantages of discrimination, especially ageism. I trust that equity should present first at school, and the primary function of the nursing educator and the curriculum designer is to teach students about fairness and the benefits of social justice for individuals and society. Through the learning process, students can learn unintended undesirable attitudes from their educators, curriculum contents, or school policies – or through what is referred to as a hidden curriculum. Alsubaie (2015) defined the concept of the hidden curriculum as “the unspoken or implicit values, behaviors, procedures, and norms that exist in the educational setting” (p. 125). For example, when the nursing curriculum lacks information related to elderly nursing care or nursing instructors allocate their students to younger adults in the clinical areas and ignore aged people, this sends the students implicit messages that geriatric people are not as significant as youngsters. Consequently, this will negatively influence the nursing students' beliefs and behaviors toward the geriatric population. Thus, there is a need to change the educational policies, pedagogical methods, and educator's teaching strategies, in addition to modifying curriculum content to enhance students' performance and attitudes. Tilley and Taylor (2013) argued that social justice education should be reflected in the curriculum's content and pedagogy used by teachers. Besides, it is not enough to reform the current curriculum or the students' background and teachers to achieve social justice and equality. Instead, social justice in education is an active movement to examine the curriculum, educational policy, and administrative strategies that maintain inequities that exist in classrooms. Deng (2010) also argued that "significant curricular change requires systems change which entails impacting change across the institutional, programmatic, and classroom levels of the curriculum” (p. 9).

Finally, I suggest using the top-down model as a point of reference while reforming the nursing curriculum (Deng, 2010). Curriculum developers should first update the vision and goals of the nursing program and then modify curricular elements that include content, pedagogy, evaluation methods, teachers, and students to improve nursing students' performance and attitudes toward geriatric care. Teachers and students' modifications happen through increasing their consciousness about geriatric value and needs, as well as the drawbacks of ageism. Deng (2010) also claimed that the top-down model places an extremely high emphasis on change in institutional and programmatic curriculum planning. This model plays a crucial role in steering the classroom curriculum in the reform direction. Furthermore, according to Deng (2010), structured curriculum reform can be an effective method for controlling curriculum discourse at the institutional and programmatic levels. In Australia, Canada, and other federated nations, there has been growing cooperation between state and federal authorities on developing an overall school curriculum based on new visions and expectations (Deng, 2010). Curricular reform by adding new curricular goals and expectations may help develop the geriatric course structure, content criteria, pedagogy, and evaluation methods. Therefore, this study aims to assess current nurses and nursing students' knowledge and attitude toward geriatric nursing care, to explore the needed knowledge and skills for geriatric care, to identify gap(s) in the nursing curriculum, and finally provide suggestions to reform the nursing curriculum.

To summarize, the literature review has illustrated that the world's aging population is in dire need of attention. Caring for the senior population is significant as the elderly are the basics of our social structure; their experiences, skills, and knowledge have sustained their families and communities. Thus, their safety and well-being should be the highest priority of the health care system, especially nurses.

The literature review revealed ample research investigating nurses' attitudes towards and knowledge of caring for the aging population. Studies have reported that some nurses discriminate against geriatric patients; nursing students cannot provide nursing services to the elderly because they are inexperienced in terms of the needs and health problems of the seniors. The literature also highlighted that it is essential to reform the nursing curriculum to empower nursing students with the needed knowledge and practice to prepare them for caring of the elderly. Consequently, undesirable behaviors of nursing students toward geriatric care can potentially undergo changes. As well, discrimination against the geriatric population in the health care sector will disappear or be eliminated. Reforming nursing education will potentially increase the efficiency of geriatric nursing care.

However, only a few studies examine the factors that affect the nurses' and nursing students' attitudes related to elderly care. Therefore, my research is warranted in order to address the attitude, knowledge, and opinions of nursing students and nurses toward caring for geriatric patients; and explore the relationships between knowledge, self-efficacy, and the attitude of nurses and nursing students toward aged patients. As well, my research addresses the literature gap related to the influencers that impact nurses' and nursing students' perspectives.

Chapter III: Methodology

A mixed-method research design was utilized to achieve the purpose of the study. The research was conducted in order to examine the knowledge, attitudes, and self-efficacy of nursing students and nurses toward caring for Canada's geriatric population. It also explores nursing curricula knowledge and skills deficits, recognizing the essential academic requirements of nursing students, and finally providing suggestions to reconfigure the nursing curriculum based on the requisite knowledge and skills for comprehensive geriatric nursing care. In the following sections, I demonstrate the rationale for using a mixed-method approach. As well, this section includes information about the description of participants, setting, the tools used, and an explanation of the research procedure and data analysis.

Research Design

A mixed-method research design was utilized for this study. According to Creswell (2013), a mixed-method approach is a research method used in the social, behavioral, and health sciences in which researchers gather, examine, and integrate quantitative and qualitative data into a single analysis to address their research questions. I believe that a mixed-method approach is essential to my study as I utilized quantitative and qualitative data to address the research questions. Data sources for the study entailed three main surveys that measured nurses' practical experience, knowledge, general opinion, self-efficacy, and attitudes towards caring for geriatric populations. The research tools effectively gathered both quantitative (Likert scale questionnaire) and qualitative (open-ended questionnaires) data.

Lodico et al. (2010) stated that the commonly used techniques for academic study are qualitative and quantitative research approaches. Also, Newman (1998) claimed that when one starts with a theory (or hypothesis) and a test to validate or disconfirm the hypothesis, quantitative analysis is conducted. However, qualitative researchers focus on investigation of the social world (Whitley & Crawford, 2005). According to Babbie (2001), qualitative research approaches can contribute to a better understanding of the phenomena or problem by using words to describe the problem. Thus, in this study, I consider a mixed method approach a good fit to explore the knowledge, attitudes and self-efficacy of nursing students and nurses toward caring for geriatric population.

Participants

Ninety participants, including nurses and nursing students with different work experiences were recruited for the study. Forty-three nursing students and 47 nurses (82 females, 8 males), ages ranging from 20 to 40+ participated in this study. The majority of participants (63.3%), had received training for geriatric care. Criteria for the participants' inclusion in this study were:

- 1) Undergraduate nursing students from universities and colleges.
- 2) New nursing graduate with less than one year of work experience.
- 3) New nursing graduate with 1 to 5 years of work experience.
- 4) Nurses with extensive work experience (more than five years).

Setting

Participants were recruited from different nursing programs (colleges and universities), nursing homes, the Canadian Nursing Students' Association, and hospitals all

over Canada. Given the context of the COVID-19 pandemic, participants were recruited online via their organizations and affiliations.

Obtaining Ethical Approval

Ethical approval was a requirement to collect data to meet the goals of my study. The process of obtaining ethical approval was facilitated by completing the research ethics application through the Western University Health Science Research Ethics Board (HSREB). The purpose of the study and the research questions were all defined, and study surveys were anonymized. A consent was requested from the Western University HSREB in accordance with the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2). The letter of information was provided in Qualtrics; if participants chose to proceed to the survey, they were providing implied consent as submitting the survey was an indication of their consent to participate.

Procedure

Following ethical approval, the administration of different nursing programs including universities and colleges, hospitals, and nursing homes for seniors in Canada were contacted via publicly available email (Appendix E) to recruit study participants. The nature and importance of the study were explained, as well as a letter of information with an introduction about the research and its potential contribution. All information about the study was forwarded by administrators, and potential participants were instructed to contact the researcher regarding questions about the study.

Recruitment of study participants was also facilitated through social media and snowball sampling. The study link was posted on WhatsApp and Facebook groups, requesting voluntary nurses and nursing student participants. Nurses and nursing students

who were interested in participating were able to access the link, the letter of information and the surveys.

From January to March 2021, participants were invited to complete the survey (Appendix A). The survey took approximately 30 minutes to complete and was administered through Qualtrics, a secure online survey platform. Participants' privacy and confidentiality were protected as survey responses were collected anonymously through Qualtrics. Upon completion of data collection, data was computed and analyzed.

Data Sources

Data were collected online utilizing the following tools:

1. Tool I: Demographic questionnaire (Appendix A).

This tool was established by the researcher based on a review of relevant literature (Canadian Nurses Association, 2019) to collect data related to nurses' characteristics such as age, gender, current work status, educational qualifications and years of experience, as well as any formal training in caring for the elderly.

2. Tool II: The Older Patient in Acute Care Survey – United States (OPACS-US) was used (Appendix B). The OPACS is a Likert-Scale survey, tested for validity and reliability in the USA by Dikken et al. (2017). It contains two sections – section A measures nurses' practical experience, and section B measures nurses' general opinions of caring for geriatric patients.

Scoring system: Items with a star * should be reverse coded (5=1, 4=2, 3=3, 2=4, 1=5). Sum all scores on the OPACS-US section A. Sum all scores on the OPACS-US section B. Divide the sum score by the numbers of questions.

3. Tool III: Knowledge-about-Older-Patients Quiz (KOP-Q) for Nurses (Appendix C).

This tool (KOP-Q) was tested for validity and reliability in the USA by Dikken et al. (2017) and is a true or false questionnaire designed to measure nurses' knowledge regarding caring for the geriatric population. This survey is used to identify nurses' knowledge deficit(s) in terms of caring for geriatric patients.

Scoring system: the total score is calculated by giving every participants a score for their responses from 100. Score $76\% \leq 85\%$ (A) means that participants possess high knowledge level, $66\% \leq 75\%$ (B) means above average knowledge level, $51\% \leq 65\%$ (C) means average knowledge level, and score $\leq 50\%$ (D) means that participants have limited knowledge level.

4. Tool IV: General Self-Efficacy Scale (GSE). The scale is available in 33 languages, with German versions developed in 1979 by Schwarzer and Jerusalem, and later, revised and adapted to 26 other languages by various co-authors. The English version was also developed by Schwarzer and Jerusalem (1995) and tested for validity and reliability. Items in the General Self-Efficacy Scale are correlated to emotion, optimism, and work satisfaction. Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety.

Scoring system: Not at all true = 1, Hardly true =2, moderately true= 3, exactly true=4. The total score is calculated by finding the sum of all items, and ranges between 10 and 40 with a higher score indicating greater self-efficacy.

5. Tool V: Open-Ended Questionnaire. Three questions were designed by the researcher to explore participants' source of knowledge, attitude, and self-efficacy in terms of geriatric care.

Data Analysis

Data analysis is a sustained process as the researcher continuously reflects on the data throughout the entire research process (Creswell, 2009). Through Likert scale surveys, the quantitative data examined nurses and nursing students' attitude towards and knowledge of geriatric patients' care. In addition, analysis of the open-ended questions (qualitative data) was conducted to address participants' self-efficacy and attitude.

Cohen et al. (2018) asserted that quantitative data analysis is a powerful research form, and it can be performed using software numerical analysis (e.g., Statistical Package for the Social Sciences or SPSS), descriptive, and inferential statistical analysis. In addition, descriptive statistics describe and present data only, and such statistics make no inferences or predictions; they report on what has been found. Thus, frequency distribution and percentage, arithmetic mean as an average that describes the central tendency of observations, standard deviation as a measure of the dispersion of results around the mean, and correlations among variables were utilized to analyze the collected data. In contrast, inferential statistics struggle to make inferences and predictions based on the collected data; therefore, inferential statistics are more powerful and valuable for researchers (Cohen et al., 2018).

Quantitative data, Likert scale survey responses, were imported and processed in Microsoft Excel and analyzed via SPSS software program using descriptive statistics and inferential statistics. Frequency distribution and percentages, arithmetic mean as an average that describes the central tendency of observations, standard deviation as a measure of dispersion of results around the mean, T-test and Chi-square were used to analyze the obtained data. In addition, the Pearson correlation coefficient test was used to measure the

strength and direction between variables. The level of significance was considered at the 5% level ($p = 0.05$). Both descriptive and inferential statistical analysis complemented each other and provided validity to the research findings.

Qualitative data were analyzed using descriptive themes, and coding (NVivo 12) to address the study's purposes. According to Miles et al. (2014), "coding is a deep reflection about and, thus, deep analysis and interpretation of the data's meanings" (p.7). NVivo coding is one of the most well-known methods of qualitative coding. It is suitable for almost all qualitative studies, especially for beginning qualitative researchers learning how to code data (Miles et al., 2014). In NVivo 12, word frequency queries were used to identify the most frequently occurring words in the data. Themes appeared by generating word clouds that reflected existing codes and their frequency depends on font size (word frequency query). Since certain words had similar or equivalent meanings, these codes were interpreted and analyzed in order to make sense of the data; related codes were incorporated into themes. Using the themes identified by the NVivo analysis, I thematically analyzed the responses to the open-ended questions. The themes were examined for frequency of occurrence among participants to illustrate similar comments, opinions, concerns, and suggestions.

In the following chapter, study findings emanating from the qualitative and quantitative data are presented.

Chapter IV: Findings

The purpose of this study was to explore the knowledge, skills, attitude, opinions, and self-efficacy of nursing students and practicing nurses toward caring for geriatric patients, and addressing the factors contributing to their attitudes. As well, this study focused on examining the nursing curriculum's contribution to nurses' knowledge, attitudes, and self-efficacy in the care of geriatric patients. In this chapter, study findings address the following research questions:

1. What are nurses and nursing students' attitudes toward caring for geriatric patients?
What are the reasons/influences for their attitudes?
2. What are nurses and nursing students' knowledge in terms of providing geriatric care?
3. What is the relationship between nurses' attitudes, knowledge, and self-efficacy in terms of caring for geriatric patients?
4. How has the nursing curriculum contributed to nurses' knowledge, attitudes, and self- efficacy in the care of geriatric patients?

In the following sections, findings emanating from the data are presented in two parts – Part A: quantitative survey findings, and Part B: open-ended questions findings. Together, Part A and B address the study's research questions.

Part A: Quantitative Survey Findings

Nursing Demographic Questionnaire (Appendix A, Part A).

This tool was established by the researcher based on a review of relevant literature to collect data related to nurses' characteristics such as age, gender, current work status,

educational qualifications and years of experience, as well as any formal training in caring for the elderly.

In total, ninety participants completed the surveys. Table1 (Nurses demographic data) lists the participants’ age, gender, marital status, work status, years of experience, and whether they received geriatric care training. Study participants consisted of 90 nurses, with ages ranging from 20 up to 40+ years old, with more than half of the study group (59.9%) between 20 to 25 years old. Females comprised 91.9% of the participants. Most of the sample were either single (60%) or married (40%). In relation to their current work status, more than half of the participants were working (52.2%), while (47.8%) were studying, and two-third of all participants (63.3%) received training for geriatric care. In terms of work experience, 43.3% of participants had no work experience, while the rest had varying years of work experience with a mean \pm SD of 8.4 \pm 9.6.

Table 1

Demographic Frequencies and Percentages among the Study Group (n=90).

Variables	Study Group	
	Frequency	Percentage
Age:		
20≤25	53	58.9
26≤30	9	10.0
31≤40	16	17.8
≥40	12	13.3
Gender:		
Male	8	8.9
Female	82	91.9

Year of Work Experience		
No work experiences	39	43.3
1≤10	38	42.2
11≤20	6	6.7
≥20	7	7.8
Mean±SD		8.4 ±9.6
Current Work Status		
Student	43	47.8
Work	47	52.2
Marital Status		
Single	54	60.0
Married	36	40.0
Receiving Training for Geriatric Care		
Yes	57	63.3
No	33	36.7

The Older Patient in Acute Care Survey – United States (OPACS-US) (Appendix A, Part B).

This questionnaire contains two parts: section A, which measures nurses' practical experience, and section B which measures nurses' general opinions regarding caring for geriatric patients.

Knowledge-about-Older-Patients Quiz (KOP-Q) for Nurses (Appendix A, Part C).

This is a true or false questionnaire designed to measure nurses' knowledge regarding caring for the geriatric population. This survey is used to identify knowledge deficit(s) of the nurses regarding care of geriatric patients.

General Self-Efficacy Scale (GSE) (Appendix A, Part D).

The General Self-Efficacy Scale is correlated to emotion, optimism, and work satisfaction. Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety. The total score is calculated by finding the sum of all items, a higher score indicating more self-efficacy. Participants' responses to statements in the Older Patient in Acute Care survey (OPASCS-US), Knowledge-about-Older-Patients Quiz (KOP-Q), and General Self-Efficacy Scale (GSE) are illustrated in Tables 2 - 11.

Table 2, illustrates findings from Section A and B of the OPASCS-US, KOP-Q, and GSE surveys, and indicate that 57.8% of the study participants have neutral attitudes toward caring for geriatric patients, while 42.2% have positive attitudes with a mean + SD of 207.08+15.44. In terms of nursing practice experience, 68.9% of participants practice neutral attitudes toward caring for the elderly, while 31.1% practice positive attitudes during caring for the geriatric population in clinical areas. Related to attitudes toward caring for geriatric patients, 58.9% of study participants expressed positive attitudes toward caring for geriatric patients, while 41.1% expressed neutral attitudes toward caring for geriatrics. In gauging participants' knowledge about older patients, less than half of the study participants (37.8%) had an average level of knowledge related to geriatric care. In contrast, the remaining participants had relatively high, above average, or limited levels of knowledge (14.4%, 23.3%, and 24.4%, respectively) with knowledge in percentage mean score +SD of 53.64+25.44. In terms of general self-efficacy, more than half of the study participants (64.4%) had an above average level of self-efficacy, while a relatively small percentage had rather high or low levels of self-efficacy (11% and 3.3%, respectively) with a mean score +SD of 24.68 +12.82.

Table 2

Grand Total the Older Patient in Acute Care survey, Nursing Practice Experiences, General Opinion, Knowledge About Older Patients and General Self-Efficacy Frequencies and Percentages Among the Study Group (n=90).

Variables	Study Group	
	Frequency	Percentage
The Older Patient in Acute Care (Total)		
Neutral	52	57.8
Positive	38	42.2
Mean±SD	207.08±15.44	
Nursing practice experience (Section A)		
Neutral	62	68.9
Positive	28	31.1
Mean±SD	89.51 ±9.66	
General Opinion (Section B)		
Neutral	37	41.1
Positive	53	58.9
Mean±SD	117.56 ±8.88	
Knowledge		
≤50%	22	24.4
51%≤65%	34	37.8
66%≤75%	21	23.3
76%≤85%	13	14.4
Knowledge in percentage Mean+SD	53.64±25.44	
General Self-Efficacy		
No Response	18	20.0
Hardly true	3	3.3
Moderately true	58	64.4
Exactly true	11	12.2
Mean±SD	24.67 ±12.81	

Table 3, reflecting findings from OPASCS-US, KOP-Q, and GSE surveys, highlights no statistically significant difference between gender and total older patient in acute care scale (t-test= 0.92, $p= 0.36$). In addition, there was no statistically significant difference between gender and total knowledge (t-test= 0.27, $p= 0.78$) and no statistically significant difference between gender and total self-efficacy (t-test= 0.21, $p= 0.83$).

Table 3

Comparison of Means Related to Gender and Total Older Patients in Acute Care Survey, Total Knowledge, and Total General Self-Efficacy (N=90).

Variables Total Scores	Gender	
	Independent T-test	P-Value
Older Patients in Acute Care (Attitudes)	0.92	0.36
Knowledge	0.27	0.78
Self-Efficacy	0.21	0.83

Table 4 illustrates that there was a statistically significant difference between current work status and total knowledge (t-test= 2.01, $p= 0.04$). There was no statistically significant difference between current work status and total older patients in acute care survey (t-test= 0.49, $p= 0.62$), and no statistically significant difference between current work status and total general self-efficacy (t-test=1.07, $p= 0.28$).

Table 4

Comparison of Means Related to Current Work Status and Total Older Patients in Acute Care Survey, Total Knowledge, and Total General Self-Efficacy (N=90).

Variables Total Scores	Current Work Status	
	Independent T-test	P-Value
Older Patients in Acute Care	0.49	0.62
Total knowledge	2.01	0.04**
Total Self-Efficacy	1.07	0.28

In exploring relationships between participants’ age and their attitudes and self-efficacy, it was noted that there was no statistically significant relationship between age and attitudes with $p= 0.52$, and no statistically significant relationship between participants’ age and self-efficacy, with $p= 0.45$ noted (Table 5).

Table 5

Relationship among Participants’ Age, General Self-Efficacy, and Older Patient in Acute Care Categories (Attitudes) (N=90).

Variables	Participants’ Age	
	Chi square	P-Value
Older Patient in Acute Care (Attitudes)	2.23	0.52
Self-Efficacy Categories	8.76	0.45

In exploring relationships between variables – age group , gender, work status, and level of knowledge – a statistically significant relationship between age group, and level of knowledge with $p= 0.0$, and a statistically significant relationship between work status and level of knowledge with $p= 0.02$ were noted. There was no statistically significant relationship between gender and knowledge level with $p= 0.38$ (Table 6).

Table 6

Relationship among Participants’ Age Group, Gender, Work Status and Knowledge Level (N=90).

Variables	Knowledge Level	
	Chi square	P-Value
Age Group	22.90	0.01**
Gender	3.07	0.38
Work Status	9.67	0.02**

**P <.01

When exploring relationships between participants’ gender and their attitudes and general self-efficacy, no statistically significant relationship was noted (Table 7).

Table 7

Relationship among Gender, Older Patient in Acute Care and Self-Efficacy Categories (N=90).

Variables	Gender	
	Chi square	P-Value
Older patient in acute care (Attitudes)	1.48	0.23
Self-efficacy categories	0.40	0.93

As shown in Table 8, 49 female nurses held neutral attitudes toward elderly care and 33 nurses held positive attitudes. While five male nurses held positive attitudes toward elderly care, three male nurses held neutral attitudes.

Table 8

Relationship between Gender and the Total Older Patient in Acute Care Categories (N=90).

Gender	Total Older Patient in Acute Care (Attitudes)	
	Neutral	Positive
Male	3	5
Female	49	33
Total	52	38

When exploring relationships between work status, attitudes and self-efficacy categories, no statistically significant relationship between work status and nurses’ attitudes, with $p= 0.77$ and no statistically significant relationship between work status and self-efficacy categories, with $p= 0.30$ noted (Table 9).

Table 9

Relationship between the Current Work Status, the Older Patient in Acute Care Survey and General Self-Efficacy Categories (N=90).

Variables	Work Status	
	Chi square	P-Value
Older Patient in Acute Care (Attitudes)	0.13	0.77
Self-efficacy Categories	3.59	0.30

In Table 10, Pearson’s correlation coefficient shows that there was a statistically significant positive correlation between the Older Patient in Acute Care total score (attitudes) and nursing practice experience total score, with $r= 0.85$ at $p= 0.000$ and a statistically significant positive correlation between general opinion total score and the older patient in acute care total score, with $r= 0.82$ at $P= 0.000$. Also, a statistically

significant positive correlation was noted between general opinion total score and nursing practice experience total score, with $r=0.38$ at $P= 0.000$.

Table 10

Correlation between Total Scores of the Older Patient in Acute Care, General Opinion, and Nursing Practice Experience (N=90).

Study Group Variables	The Older Patient in Acute Care	General Opinion	Nursing Practice Experience
	r-test	r-test	r-test
The Older Patient in Acute Care Total Score (Attitudes)		0.82** P= 0.000	
General Opinion Total Score			0.38** P= 0.000
Nursing Practice Experience Total Score	0.85** P= 0.000		

** $P < .001$

As shown in Table 11, Pearson’s correlation coefficient demonstrated that there was a statistically significant positive correlation between the older patient in acute care total score and total knowledge with $r= 0.219$ at $p= 0.04$, and a statistically significant positive correlation between total knowledge and total self-efficacy score with $r= 0.796$ at $p= 0.000$. Also, there was a statistically significant positive correlation between the older patient in acute care total score and self-efficacy total score with $r= 0.217$ at $p= 0.04$, and a statistically significant positive correlation between self-efficacy and the number of years of experience with $r= 0.207$ at $p= 0.05$.

Table 11

Correlation between Total Score of the Older Patient in Acute Care, Knowledge Level, General Self-Efficacy, and Number of Years of Experience (N=90).

Study Group Variables	The Older Patient in Acute Care r-test	Total Knowledge r-test	Self-Efficacy r-test	Number of Years of Experience r-test
The Older Patient in Acute Care			0.217* 0.04	
Total knowledge	0.219* 0.04			0.194 0.07
Self-efficacy		0.796** 0.000		
Number of years of experience	0.09 0.39		0.207 0.05	

**P <.001

To summarize, upon analyzing the three main surveys (OPASCS-US, KOP-Q, and GSE), what can be inferred is that most of the participants have neutral attitudes toward caring for geriatric patients, and their knowledge ranged from average to above average levels. In addition, the majority of study participants had an average level of self-efficacy in terms of caring for geriatric patients. Statistical analysis revealed that there was no statistically significant difference between gender and nurses’ attitudes or between gender and knowledge, or between gender and self-efficacy. Also, there was no statistically significant difference between work status and nurses’ attitudes or work status and self-efficacy.

Findings revealed that there was a statistically significant difference between work status and level of knowledge. In addition, there was a statistically significant relationship between age group and level of knowledge. Moreover, there was a statistically significant positive correlation between nurses' general opinion and their nursing practice experience. There was a statistically significant positive correlation between nurses' attitudes and total knowledge level and a statistically significant positive correlation between knowledge and self-efficacy total score. There was a statistically significant positive correlation between the older patient in acute care total score (attitudes) and self-efficacy total score. Finally, there was a significant positive correlation between self-efficacy and the number of years of experience.

Part B: Open-ended Question Findings

Open Ended Questionnaire (Appendix A, Part E)

In this study, three questions explored participants' source of knowledge, attitude, and self-efficacy in terms of geriatric care.

The contribution of nursing curriculum to knowledge of geriatric care

Participants' responses to question one "*How has the nursing curriculum contributed to nurses' knowledge in the care of geriatric patients?*" were isolated in NVivo and a word frequency query was executed. A word cloud was created to determine the words and phrases that were most frequently used in the overall number of participants' responses. Figure 2 illustrates the themes that emerged as well as their frequency based on font size. These words were then explored and interpreted to seek context as some words carry equal or similar meaning (e.g., "elderly", "geriatrics" and "gerontology" or "medication" and "medicine").

As shown in Figure 2, the most frequently used words in terms of participants' knowledge in caring for the elderly were caring (n=24), nursing (n=21), aging (n=14), curriculum (n=13), patients (n=13), helpful (n=12), learned (n=10), prepared (n=10) and knowledge (n=13). There were also a few specific words related to the research question which had average counts: clinical (n=7), working (n=7), experience (n=7), understanding (n=7), providing (n=5), contributed (n=4), important (n=4), related (n=4), focused (n=4), communication (n=3), dementia (n=3), challenges (n=3), developed (n=2), base (n=2), and confidence (n=2).

Figure 2

Word Clouds Exploring Participants' Responses to the Impact of Nursing Curriculum on their Knowledge.

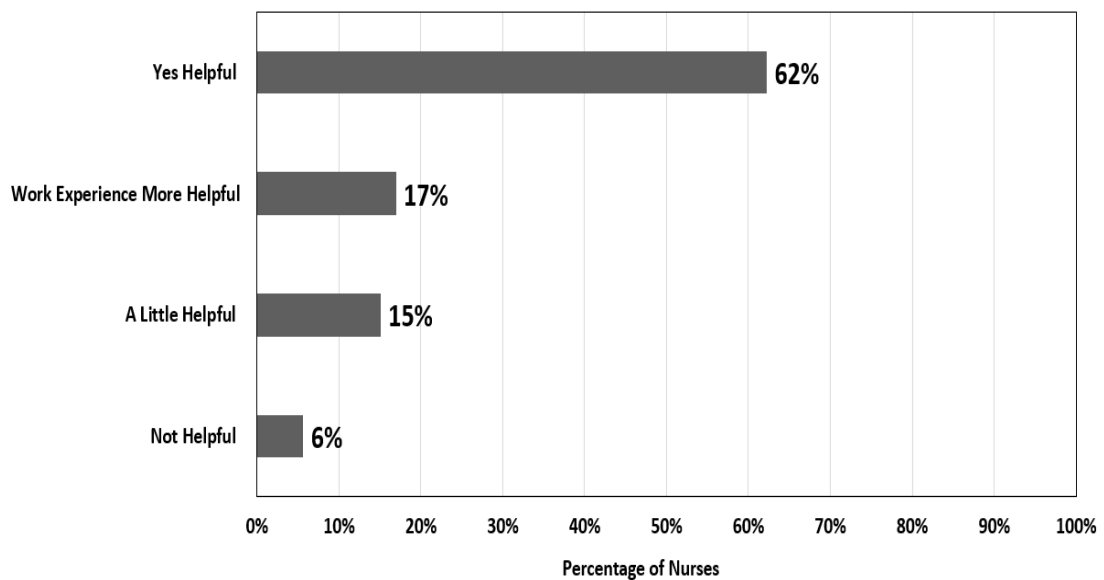


Upon further analysis of participants' responses related to the nursing curriculum, knowledge, and skills required for geriatric care, the following themes were identified: helpful, work experience more helpful, a little helpful, and not helpful. Most nurses (62%) agreed that the nursing curriculum was helpful in terms of providing them with the

important knowledge and skills required for geriatric care. In comparison, 17% stated that work experience was helpful, and the remaining participants agreed that the nursing curriculum was a little helpful or not helpful (15% and 6%, respectively), as illustrated in Figure 3.

Figure 3

Nurses' Opinions of the Contribution of the Nursing Curriculum to their Knowledge.



For most nurses (62%), the curriculum was viewed as helpful. Participants commented:

I feel more equipped to handle geriatric problems due to the nursing curriculum...

(Female nurse, 20-25 years old).

I was unaware of the various changes that are “expected” and “unexpected” in the

aging process and the nursing curriculum has fixed most of those deficits... (Female

nurse, 20-25 years old, one-year work experience).

The nursing curriculum contributed to my knowledge in care of geriatric patients as first

year involved a long-term care placement. Assisting PSWs is a good base for learning

how to provide care for seniors... (Female nurse, 20-25 years old).

The nursing curriculum has contributed to my knowledge in the care of geriatric patients by teaching up about the normal process of aging... (Female nurse, 20-25 years old).

As for the second theme, work experience more helpful, participants commented:

Nursing curriculum doesn't help me much but my experience as a nurse for past 8 years helped me a lot... (Female nurse, 8 years' work experience).

Experience/knowledge from working in dialysis + 20 years... (Female nurse, 40+ years old, 25 years' work experience).

I know that most of my knowledge of care for geriatric patients has come from my work as a PSW in a long-term care home... (Female nurse, 20-25 years old).

Related to the third theme, the nursing curriculum is a little helpful, participants commented:

Very little... (Male nurse, 35 years of experience).

I only got one course; it was hardly enough... (Female nurse, 31- 40 years old, 6 years work experience).

Participants commented on the final theme, the nursing curriculum is not helpful:

Not really, what I learned in nursing school and what I have been working in the last 4 years was different... (Female nurse, 26-30 years old, 4 years' work experience).

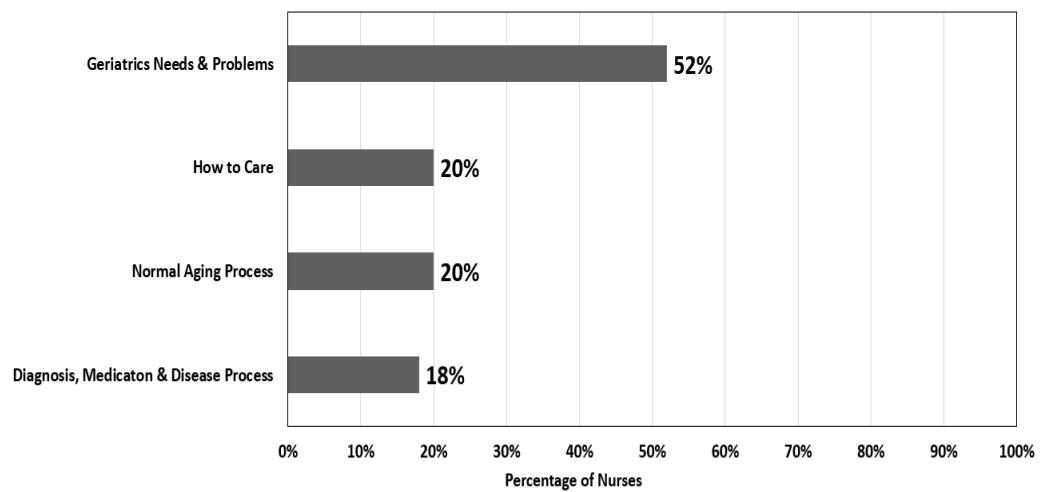
Not enough knowledge when you are newly graduated, learn process start when you are hands on ... (Female nurse, 40+ years old, 22 years' work experience).

Four themes related to types of knowledge in the nursing curriculum were identified: geriatric needs and problems; caring for geriatrics; normal aging process; and diagnosis, medication, and disease processes (Figure 4). The most frequently occurring theme reported by nurses (52%) is that the nursing curriculum helped by providing knowledge

about geriatrics such as the characteristics of this population, geriatric needs, and problems. This was followed by providing knowledge about the aging process, how to care for geriatric patients, and finally, knowledge about common diagnosis, medication, and diseases process (20%, 20% & 18% respectively).

Figure 4

Nurses' Account of How the Nursing Curriculum Contribute to their Knowledge



For more than half of the participants (52%), the nursing curriculum provided knowledge about geriatric needs and problems. Nurses commented:

Nursing curriculum has given me an explanation about what geriatric population is...
 (Male nurse, 30 years' work experience).

Joint effort from multiple courses and personal experience I've been able to expand my knowledge on the geriatric population. I'm currently taking a course on aging and health and feel that it should be a core course as it goes in depth on that specific demographic ... (Female nurse, 20-25 years old).

As for the second theme, the nursing curriculum provides knowledge of how to care for geriatric patients, participants commented:

Increase my knowledge regarding care of geriatrics... (Female nurse, 20-25 years old).

The nursing curriculum contributed to my knowledge in care of geriatric patients as first year involved a long-term care placement. Assisting PSWs is a good base for learning how to provide care for seniors... (Female nurse, 20-25 years old).

The nursing curriculum has prepared me for the care of the elderly by shedding light on the normal ageing process, and common health challenges among the elderly... (Female nurse, 31-40 years old).

With respect to the third theme, the nursing curriculum provides knowledge about the normal aging process, participants commented:

The nursing curriculum has contributed to my knowledge in the care of geriatric patients by teaching up about the normal process of aging... (Female nurse, 20-25 years old).

It has helped me understand what normal aging process is and what areas of concern are... (Female nurse, 20-25 years old).

Participants commented on the final theme, the nursing curriculum provides knowledge of geriatrics' common diagnosis, medication, and disease processes:

I have taken complex I, complex II, med surge, pharmacology and other classes that explain the pathophysiology of multiple illnesses related to the geriatric population... (Female nurse, 20-25 years old, 2 years' work experience).

It was many years ago, but we did have several sessions on caring for the elderly. Plus, many chronic diseases were related to the older adult... (Female nurse, 40+ years old, 29 years' work experience).

The nursing curriculum contributed to my knowledge of geriatrics in a foundational manner. It provided the basic considerations for common medications, pathology, and nursing diagnoses... (Female nurse, 26-30 years old, 3 years' work experience).

The contribution of nursing curriculum to nurses' attitudes toward geriatric care

Participants' responses to question two "*How has the nursing curriculum contributed to nurses' attitudes in the care of geriatric patients?*" were isolated in NVivo and a word frequency query was executed. Figure 5 illustrates the themes that emerged as well as their frequency based on the font size. These words were then explored and interpreted in order to seek context as some words carry equal or similar meaning (e.g., "required" and "needed" or "empathy" and "compassionate" or "learning" and "education").

Figure 5 illustrates the most significant words in terms of participants' attitudes toward caring for the elderly. More frequently mentioned words include: caring (n=32), patient (n=32), geriatric (n=29), nursing (n=15), curriculum (n=14), understanding (n=10), attitudes (n= 10), education (n=6), informative (n=4), awareness (n=4), view (n=4), and experience (n=4). Some positive words include: positively (n=10), helped (n=11), patience (n=5), respectful (n=5), health (n=4), compassionate (n=4), decisions (n=3), empathy (n=3), treat (n=3), and individualized (n=3). There were also few specific words: biases (n=3), complexity (n=3), risks (n=3), and delirium (n=3).

Figure 5

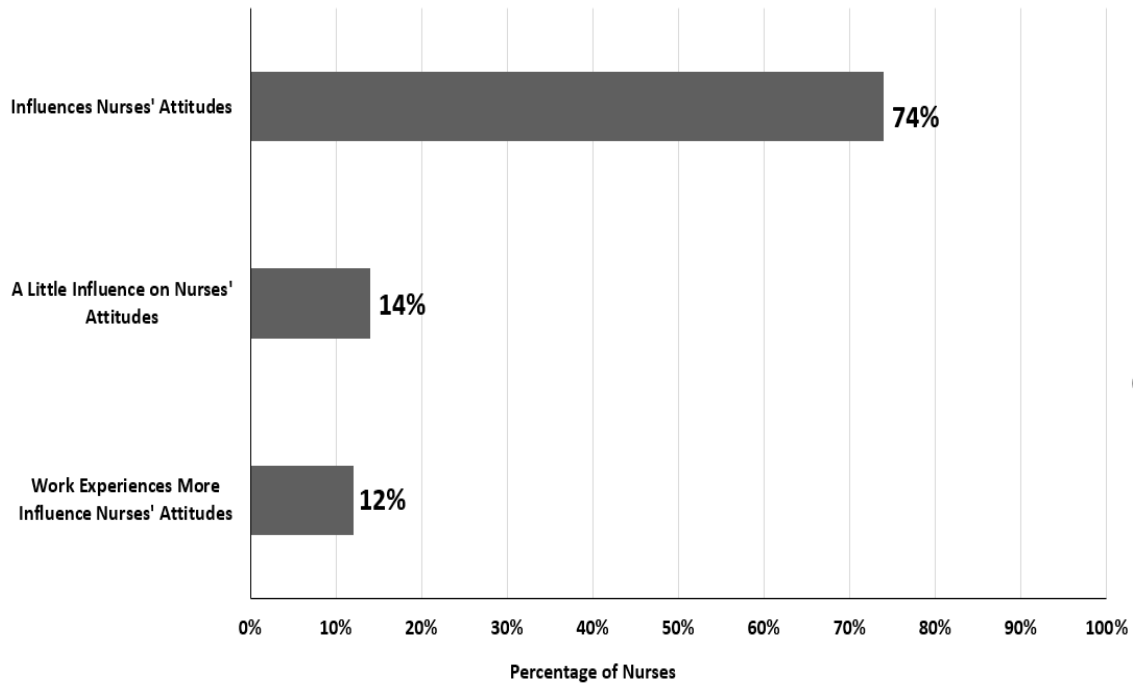
Word Cloud Exploring Nurses' Responses to the Impact of the Nursing Curriculum on their Attitudes.



Upon analyzing participants' responses in terms of the nursing curriculum influencing their attitudes, the following themes emerged: influence nurses' attitudes; a little influence on nurses' attitudes; and work experience more influences nurses' attitudes. The majority of nurses (74%) believe that the nursing curriculum positively impacts their attitudes toward geriatric patients. In contrast, a small percentage of nurses (14%) said that the nursing curriculum had a minor influence on their attitudes, and other nurses (12%) reported that clinical work experience had more impact on their attitudes toward caring for the elderly (Figure 6).

Figure 6

Nurses' Account of the Contribution of the Nursing Curriculum to their Attitudes towards the Elderly.



For most of nurses (74%), the nursing curriculum positively impacted their attitudes.

Participants commented:

Explaining why they act the way they do (ex. Delirium, responsiveness) and therefore I do not take hurtful words or actions personally ... (Female nurse, 26-30 years old, 6 years' work experience).

Education on geriatric patients influences my attitude and gives me more empathy ... (Female nurse, 40 years old, 5 years' work experience).

They taught us not to judge whatever the case or age is... (Female nurse, 20-25 years old, 2 years' work experience).

The nursing curriculum contributed to my attitude in the care of geriatric patients as we have been educated on treating all patients with dignity. There are certain concerns in this population that occur more frequently such as incontinence, but this shouldn't be considered a part of the aging process... (Female nurse, 20-25 years old).

Participants commented on the second theme, the nursing curriculum had a little influence on nurses' attitudes:

I honestly think the nursing program focuses too much on geriatric deficits, and not enough on their strengths... (Female nurse, 20-25 years old).

It's is good but needs to be better when approaching unforeseen problems that students might encounter. Mental health of older adults seems to be left out... (Female nurse, 20-25 years old, 5 years' work experience).

I honestly think the nursing program focuses too much on geriatric deficits, and not enough on their strengths, a lot of seniors will not fit the standard mold that we have been taught... (Female nurse, 20-25 years old).

Regarding the final theme, work experience influences nurses' attitudes, participants commented:

Actually, my experiences helped me more to deal positively with older people... (Female nurse, 31-40 years old, 10 years' work experience).

My experience more than school has contributed to my attitude toward geriatric patients. It takes additional patience and knowledge to care for this population which is not always recognized during learning... (Female nurse, 31- 40 years old, 1.5 years' work experience).

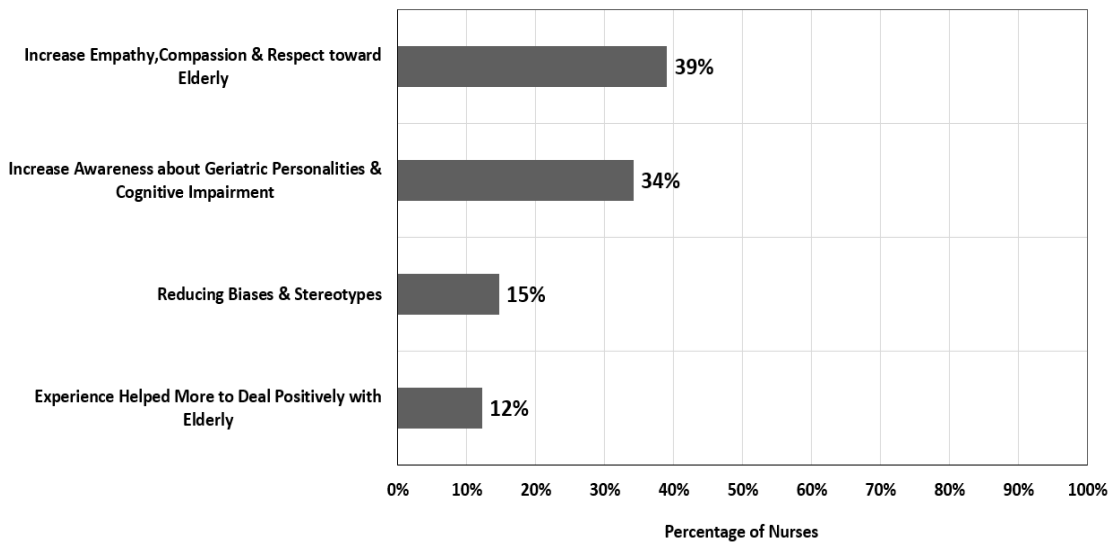
Practical experience helps more... (Female nurse, 20- 25 years old).

I think attitudes are formed more once working with the population (Female nurse, 26-30 years old, 6 years' work experience).

As seen in Figure 7, four themes were identified: increase empathy, compassion, and respect toward elderly; increase awareness about geriatric personalities and cognitive impairment; reduce biases and stereotypes; and experience helped more to deal positively with the elderly. The most significant theme identified by nurses (39%) is that the nursing curriculum had a positive impact on nurses' attitudes by increasing nurses' empathy, compassion, and respect toward the elderly. This was followed by increasing nurses' awareness about geriatric personalities and cognitive impairment (34%), followed by reducing bias and stereotypes (15%), and finally, a small group of nurses (12%) stated that work experience helped them more to deal positively with elderly patients.

Figure 7

Nurses' Account of How the Nursing Curriculum Contribute to their Attitudes.



The nursing curriculum helped nurses (39%) in terms of increasing empathy, compassion, and respect toward elderly patients. Participants commented:

Education on geriatric patients influences my attitude and gives me more empathy...
(Female nurse, 40 years old, 5 years' work experience).

When I knew that elderly people high risk for many chronic diseases than adults, I pretended to provide them with physical and emotional care... (Female nurse, 31-40 years old, 15 years' work experience).

After learning how to properly care for geriatric patients I became more understanding and sympathetic with the patients... (Female nurse, 20-25 years old).

Made me more compassionate and empathetic... (Female nurse, 20-25 years old, 2 years' work experience).

Related to the second theme, the nursing curriculum increasing nurses' awareness about geriatric personalities and cognitive impairment, participants commented:

It has been great to read the part for older adults in every chapter I read from Pathophysiology and Medical surgical books. Also, the half semester we had in geriatrics was very informative about Delirium and Ageism... (Female nurse, 20-25 years old).

Nursing curriculum gave me an awareness about what kind of person I should be in taking care of the geriatrics, the curriculum helped me to get the knowledge and skills required to be a geriatric nurse... (Female nurse, 3-40 years old, 8 years' work experience).

The nursing curriculum has taught me the concept of personhood- i.e., each individual, either young or old must be respected, seen as a person, and be allowed to be able to make active decisions regarding their own care. In cases where the patient is cognitively impaired, decisions will be made by their substitute decision maker. However, the

patient's views should still be validated, and they should be involved as much as possible in their own care... (Female nurse, 31-40 years old).

With respect to the third theme, the nursing curriculum helped in reducing bias and stereotypes toward geriatric population, participants commented:

The curriculum also teaches you to treat the elderly with respect and to avoid stereotypes... (Female nurse, 20-25 years old, 2.5 years' work experience).

Person-centered care and individualized care. Attempting to put aside bias/stereotypes ... (Female nurse, 20-25 years old, one-year work experience).

Our mental health course has helped eliminate stigmas and biases towards geriatric patients which helped my attitude... (Female nurse, 20-25 years old).

For the final theme, work experience helped nurses more to deal positively with elderly patients, nurses commented:

My experience more than school has contributed to my attitude toward geriatric patients. It takes additional patience and knowledge to care for this population which is not always recognized during learning... (Female nurse, 31-40 years old, 1.5 years' work experience).

Actually, my experiences helped me more to deal positively with older people... (Female nurse, 31-40 years old, 10 years' work experience).

I think attitudes are formed more once working with the population... (Female nurse, 26-30 years old, 6 years' work experience).

The contribution of nursing curriculum to nurses' self-efficacy toward geriatric care

Participants' responses to question three "*How has the nursing curriculum contributed to nurses' self-efficacy in the care of geriatric patients?*" were isolated in NVivo and a word frequency query was executed. Figure 8 illustrates the themes that

emerged as well as their frequency based on font size. These words were then explored and interpreted in order to seek context as some words carry equal or similar meaning (e.g., “help”, “support” and “assistance” or “base” and “foundation”).

Figure 8 highlights the most significant words in terms of participants’ self-efficacy toward caring for the elderly. The words mostly used include: caring (n=28), patients (n=22), geriatric (n=15), self (n=12), helpful (n=11), understanding (n=7), efficacy (n= 10), providing (n=10), population (n=9), nursing (n=9), curriculum (n=9), learning (n=8), and experience (n=9). There were also some specific positive words related to the research question: confidence (n=7), increased (n=6), able (n=6), required (n=6), better (n=5), contributed (n=5), personally (n=6), approach (n=6), assistance (n=3), importance (n=3), supported (n=3), ability (n=3), effective (n=3), aware (n=3), well (n=3), help (n=3), feel (n=2), and emotional (n=3). There were no explicitly negative words.

Figure 8

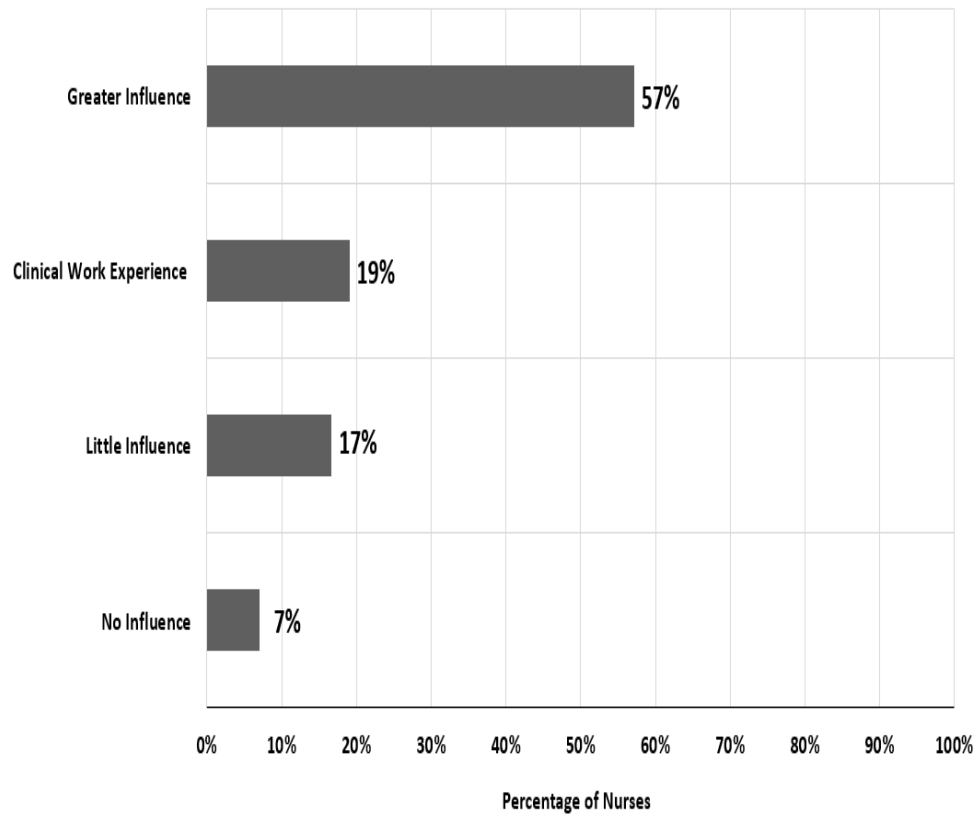
Word Cloud Exploring Participants' Account of the Impact of the Nursing Curriculum on their Self-Efficacy.



The following themes were derived from nurses' responses to the open-ended question focusing on the impact of the nursing curriculum on their self-efficacy in caring for geriatric patients. The most frequently occurring (57%) theme identified by nurses was that the nursing curriculum significantly influenced their self-efficacy. However, 19% reported that work experience impacted their self-efficacy, and 17% agreed that the nursing curriculum had little effect on their self-efficacy. A small group of nurses, 7%, indicated that the nursing curriculum did not affect their self-efficacy (Figure 9).

Figure 9

Nurses' Account of the Contribution of the Nursing Curriculum to their Self-Efficacy.



For more than half of the participants (57%), the nursing curriculum had a greater influence on their self-efficacy. Participants commented:

Yes, as the knowledge which I obtained from the nursing curriculum helped me to increase my self-efficacy... (Female nurse, 31-40 years old, 10 years' work experience).

The nursing curriculum focused heavily on the geriatric population, with many courses focusing on this population. I felt very prepared... (Female nurse, 20-25 years old, 2.5 years' work experience).

With increased knowledge and practicum opportunities, I was able to increase my confidence and ability to care for geriatric patients... (Female nurse, 26-30 years old, 6 years' work experience).

Learning about personhood, pathophysiology of common diseases that occurs in old age, and gentle persuasive techniques in dementia care has contributed greatly to my preparedness and self-efficacy in the care of the elderly... (Female nurse, 31-40 years old).

Very well, contributed to my self-efficacy, I'm very good when providing personal care to geriatric patients but this is because I have taken the initiative to learn through e modules and gentle persuasive approach...(Female nurse, 20-25 years old , 5 years' work experience).

Participants commented on the second theme, clinical work experience more so influence nurses' self-efficacy:

Just basic knowledge provided. Mostly self-efficacy came with years of experience... (Female nurse, 40+ years old, 22 years' work experience).

Minimally, again I think this comes with experience in the field ... (Female nurse, 26-30 years old, 6 years' work experience).

Hospital experience helps more... (Female nurse, 20-25 years old).

I became more confident in providing nursing care for geriatric through the practice in hospital... (Female nurse, 31-40 years old, 15 years' work experience).

I believe it gave me an adequate start but working in long term care as a PSW gave me all of the knowledge and experience that I have today... (Female nurse, 31-40 years old).

In terms of the third theme, the nursing curriculum had little influence on nurses' self-efficacy, participants commented:

Very little impact... (Male nurse, 40+ years old, 35 years' work experience).

I feel I have learned the foundations to the medical care required to assist this population. However, I feel I have had to build my own style of care to include the holistic and personal touch required as the curriculum handed a one size fits all approach... (Female nurse, 20-25 years old).

Some information has been helpful in caring for the elderly, for example, highlighting misconceptions about aging... (Female nurse, 20-25 years old with one-year work experience).

Participants commented on the final theme, the nursing curriculum had no influence on nurses' self-efficacy:

Personally speaking, I find to still be lacking in self-confidence due to lack of guidance and practice in the field. However, the untapped knowledge and theories are there. It'll just be a matter of learning experience and time... (Female nurse, 20-25 years old).

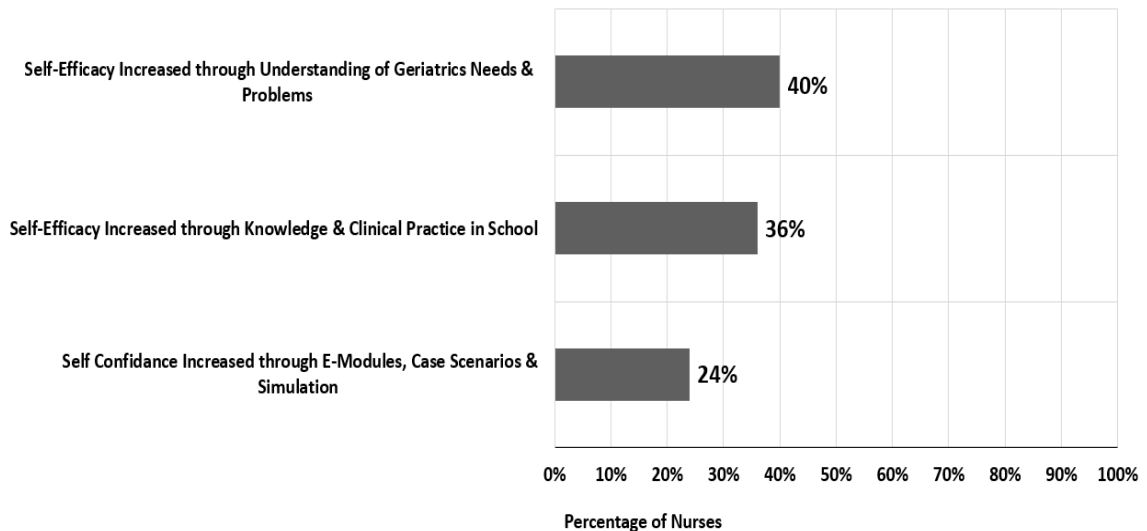
It was not at all helpful... (Female nurse, 31-40 years old, 6 years' work experience).

Nope, experience, and personal development, emotional and social intelligence... (Female nurse, 40+ years old, 25 years' work experience).

As illustrated in Figure 10, three themes were identified: self-efficacy increased through understanding of geriatric needs and problems; self-efficacy increased through knowledge and clinical practice in school; and self-efficacy increased through providing e-modules, case scenario and simulations. The most frequently reported theme (40%) is that the nursing curriculum helped increase nurses' self-efficacy through understanding of geriatrics needs and problems; followed by providing knowledge and clinical practice in nursing school (36%), and by providing e-modules, case scenarios, and simulations (24%).

Figure 10

Nurses' Account of How the Nursing Curriculum Contribute to their Self-Efficacy.



For most nurses (40%), self-efficacy increased through an understanding of geriatric needs and problems. Participants commented:

Understanding common issues/problems in geriatric patients' increases confidence...
 (Female nurse, 20-25 years old, one-year work experience).

It has contributed to my base knowledge and understanding of the geriatric population to effectively provide this population with effective care and give dignity and respect to the patient... (Female nurse, 40+ years old, 5 years' work experience).

Yes. We spent many hours discussing the emotional support and resources that is required to provide care for the elderly... (Female nurse, 40+ years old, 29 years' work experience).

The second theme, self-efficacy increased through knowledge and clinical practice in school, was supported by participants' comments:

The knowledge which I obtained from the nursing curriculum helped me to increase my self-efficacy ... (Female nurse, 20-25 years old).

Self-efficacy increased through clinical experience in school. Providing us with the opportunity to care for geriatric patients- both with and without dementia was useful. Recognizing what is considered normal in aging and what is not... (Female nurse, 20-25 years old, 1.5 years' work experience).

The nursing curriculum has contributed to my self-efficacy in the care of geriatric patients as this improves through clinical practice... (Female nurse, 20-25 years old).

I became more confident in providing nursing care for geriatric through the clinical practice in school... (Female nurse, 31-40 years old, 15 years' work experience).

Participants commented on the final theme, self-efficacy increased through providing e-modules, case scenarios and simulations:

Case scenarios and simulations with older patients is helpful... (Female nurse, 31-40 years old, 1.5-year work experience).

Very well, contributed to my self-efficacy, I'm very good when providing personal care to geriatric patients but this is because I have taken the initiative to learn through e-modules and gentle persuasive approach ... (Female nurse, 20-25 years old , 5 years' work experience).

In summary, findings from an exploration of the contribution of the nursing curriculum to the knowledge, attitudes, and self-efficacy of nurses in caring for geriatric patients highlighted that the majority of nurses reported that the nursing curriculum had a significant influence on their knowledge, attitudes, and self-efficacy in terms of providing them with the required knowledge and skills that empowered them to provide comprehensive nursing care and deal positively with the geriatric population. However, some nurses reported that the nursing curriculum was either a little helpful or not helpful,

and that their work experience provided them with the knowledge and skills and helped them more in terms of positively engaging with geriatric patients.

Chapter V: Discussion

The main research questions explored nurses and nursing students' attitudes, knowledge, and self-efficacy in providing care for the geriatric population. In this section, I discuss the findings in light of the literature and research questions and highlight implications for practice. I will also examine the reasons for their attitudes, the relationship between nurses' attitudes, knowledge, and self-efficacy, and how the nursing curriculum contributed to nurses' knowledge, attitudes, and self-efficacy in terms of caring for geriatric patients. This section will conclude with the significance of this study and highlight recommendations for nursing curricula.

Nurses' Attitudes toward Caring for Geriatric Patients

Based on findings of this study and Table 2, more than half of the total participants held neutral attitudes toward caring for geriatric patients, while the remaining participants held positive attitudes. Nurses expressed their attitudes toward geriatric care through their opinion and nursing practice experience. It became apparent that there were no negative attitudes among Canadian nurses toward caring for geriatric populations. Based on previously discussed literature about nurses' attitudes toward aged care, findings from this study are to some extent congruent with Gould et al. (2015), which revealed that nursing students had positive behaviors when it came to caring for the elderly, at least where there is no dementia. Also, Zhang and Sun (2019) maintained that nurses who were prepared to work with the elderly showed a positive attitude towards them.

Correspondingly, Topaz and Doron (2013) reported that nurses with supportive attitudes towards the elderly stated that they listen attentively, assist with compassion, and develop a friendly relationship with their patients. According to Neville and Dickie (2014),

who analyzed 32 studies, nursing students had positive perceptions and attitudes toward geriatric care. In the same context, Hweidi and Al-Obeisat (2006) revealed that most Jordanian nursing students have a positive attitude toward their older patients. Similarly, nursing students in Macao, China, were found to have a positive perspective toward the elderly (Hsu et al., 2019). Likewise, Chi et al. (2016) declared that "Taiwanese undergraduate nursing students had neutral to slightly favorable attitudes toward working with older adults" (p.172).

Findings of this study contradict Dikken et al. (2017), who asserted that nurses negatively affect older patients. Alike, Abozeid (2015) revealed that most of the nurses have negative behaviors towards elderly patients. Several nursing studies have shown that nurses and nursing students have negative attitudes towards the aged. For example, in the United Kingdom, there were ageist views expressed by nurses, which negatively influence the dignity and autonomy of elderly patients (Gallagher et al., 2006). According to Liu et al. (2012), the attitudes of registered nurses and nursing students towards the geriatric population varied from positive to negative to neutral.

Nurses' Knowledge Level and Self-Efficacy in Terms of Providing Geriatric Care

The present study illustrated that less than half of the participants possessed some knowledge about caring for older patients, while the remaining participants possessed relatively high, average, or low knowledge levels. These findings are congruent with Topaz and Doron (2013) who reported that Israeli nurses had limited knowledge and understanding of elderly care. My study findings parallel those of Zhang and Sun (2019), who found that most of the nurses in their research had a low level of knowledge about elderly care. In terms of nurses' self-efficacy, in my study most nurses had an above average

level of self-efficacy, while a relatively small percentage had rather high or low levels of self-efficacy. This finding reflects Zhang and Sun's study (2019), which revealed that nurses' knowledge and self-efficacy related to elderly care were found to be at low levels in Chinese nursing homes. Also, Zhang and Sun (2019) found that older nurses interested in working with the aged had a high level of self-efficacy. Correspondingly, Soudagar et al. (2015) revealed that nurses' self-efficacy is absolutely significant for the efficiency of clinical skills, and many variables can affect their self-efficacy, such as level of education, clinical experience, nurses' interest, and demographic characteristics.

Overall, study findings highlighted in Tables 12 and 13 demonstrate that on one hand there is a statistically significant relationship between nurses' work status and their knowledge level for geriatric care, and a statistically significant relationship between nurses' age and their knowledge level. In addition, there was a statistically significant positive correlation between nurses' attitudes and their total knowledge level. These findings coincide with Hirst et al. (2012), who analyzed the attitudes of nursing students and nursing curriculum content across Canada, and noted that knowledge, attitudes, and interest in caring for the geriatric population are all interrelated. Moreover, they found that nursing students who interacted more with older patients may develop relatively positive attitudes as a result. The researchers also indicated that some existing research had linked insufficient knowledge and nursing practice regarding older adults to the unfavorable attitudes towards elderly patients. Equally, according to Soudagar et al. (2015), nurses with different levels of knowledge had varying self-efficacy levels. Brabham (2018) also confirmed a statistically significant relationship between nurses' knowledge level and attitudes, noting that nursing students had positive attitudes toward older people despite

their lack of knowledge about aging characteristics. Moreover, Kotzabassaki et al. (2002) confirmed a statistically significant correlation between Greek nursing students' attitudes and their level of knowledge. In the same way, Topaz and Doron (2013) demonstrated that nurses' attitudes are strongly affected by their age, cultural background, educational level, and knowledge level regarding geriatric care.

On the other hand, findings from my study are inconsistent with Mellor et al. (2007) who indicated that Australian nurses have very positive attitudes toward seniors despite their lack of knowledge of the socio-economic condition of the geriatric population and essential clinical skills of geriatric nursing. Similarly, Ryan and McCauley (2005) noted that nursing students have a strongly favorable view toward senior citizens and a knowledge deficit regarding geriatric nursing care. Findings from my study revealed that there was a statistically significant positive correlation between knowledge and self-efficacy total score and a statistically significant positive correlation between nurses' attitudes and their total self-efficacy score. Findings from my study contradict a recent study showing that Thai nurses had a high level of knowledge and possess a positive attitude toward seniors' care, while their self-efficacy was average (Prasomsuk et al., 2020). Similarly, Alsenany (2009) stated that while Saudi nursing students lacked understanding of the aging process and physiological and psychological features, they held mainly positive attitudes toward elderly patients.

Finally, this study revealed a significant positive correlation between nurses' self-efficacy and years of experience, while there was no statistically significant correlation between nurses' attitudes and their years of experience. These results are congruent with Abozeid (2015), who found no statistical variation between nurses' attitudes and work

experience. In the same context, this study finding coincide with Prasomsuk et al. (2020) who revealed that there was a statistically significant correlation between Thai nurses' attitude and knowledge level, as well as attitude and self-efficacy; however, there was no correlation between knowledge and self-efficacy. In the same context, Wells et al. (2004) indicated that Australian nurses have less understanding about geriatric care than other health providers. They were anxious about caring for seniors, and they agree that working with geriatrics was correlated with low self-esteem and negative behaviors.

There is no statistical relationship between age group and nurses' attitudes, or self-efficacy was revealed (Table 5) and no statistical relationship between gender and nurses' attitudes or self-efficacy (Table 8) were noted. In addition, as highlighted in Table 7, there was no statistically significant relationship between gender and knowledge level of nurses. Furthermore, as demonstrated in Table 10, there was no statistical correlation between work status and nurses' attitudes or self-efficacy. It is apparent that study findings are congruent with Abozeid (2015), who revealed no statistically significant relationship between age and attitudes. Meanwhile, these findings are inconsistent with those of Gallagher et al. (2006), which indicated that age, gender, education level, spending time with an elderly adult, and areas of experience tend to have a significant impact on changing attitudes about geriatric care.

Abozeid (2015) noted that female nurses reported more negative attitudes toward older people than male nurses. Zhang and Sun (2019) also showed that female nurses with extensive work experience had negative attitudes towards the geriatric population. Correspondingly, Hweidi and Al-Obeisat (2006) found that nursing students' behaviors were strongly associated with their age and social background and noticed that male and

older nursing students showed positive attitudes toward the aged group compared to their female peers. Arani et al. (2017) confirmed that Iranian nurses had negative attitudes towards geriatric patients. Findings of my study revealed a statistically significant difference between nurses' attitudes toward elderly care and their socio-demographic characteristics such as age, work experience, and work status; equally, there was a statistically significant relationship between nurses' gender and attitudes. As well, Liu et al. (2012) demonstrated that nurses' attitudes are influenced by their work experience, knowledge, and understanding of the aging process, and there was no statistically significant difference between attitudes of registered and student nurses and their ages, gender, or educational level.

The Influences of the Nursing Curriculum on Nurses' Knowledge, Attitudes, and Self- Efficacy

Specific trends are highlighted in Figures 2 and 3, when examining the impact of the nursing curriculum on nurses' knowledge, attitudes, and self-efficacy. The majority of nurses "agreed" with many of the statements related to the importance of the nursing curriculum, especially with comments that discussed how the nursing curriculum helped provide them with the required knowledge and skills about geriatric needs, problems, the aging process, common diagnosis, and medications. In particular, statements such as: "I feel more equipped to handle geriatric problems due to the nursing curriculum"; "The nursing curriculum contributed to my knowledge in the care of geriatric patients as the first year involved a long-term care placement. Assisting PSWs is a good base for learning how to provide care for seniors"; "The nursing curriculum has prepared me for the care of the elderly by shedding light on the normal aging process, and common health challenges

among the elderly"; and "The nursing curriculum has contributed to my knowledge in the care of geriatric patients by teaching up about the normal process of aging" corroborate and support the identified themes. My study findings, to some extent, is in accordance with Hsieh and Chen (2018) who revealed in their systematic review that incorporating geriatric and long-term care courses into undergraduate nursing curricula could help students improve their nursing knowledge and skills. Equally, Hsu et al. (2019) asserted that Macao nursing students' positive attitudes toward Chinese seniors were associated with their clinical experience, knowledge level, and religion. A study of nurses in Greece (Kotzabassaki et al., 2002) revealed that nursing students believe that their nursing curriculum equipped them with appropriate knowledge and skills to deal with elderly patients, and they expressed their willingness to work with them after graduation

Study findings indicate that another group of nurses "agreed" that the nursing curriculum was not helpful, and that they acquired their practical experience from working in the hospital setting. Examples of statements include: "Nursing curriculum doesn't help me much but my experience as a nurse for past 8 years helped me a lot", and "Not enough knowledge when you are newly graduated, learn process start when you are hands-on". These findings are corroborated by the literature on clinical practice being essential for the development of nursing students in geriatric care, as clinical practicum is needed to prepare students with problem-solving, clinical experience, clinical judgment, and administration skills (Hsieh & Chen, 2018). These results are also compatible with a Saudi study which revealed that training and working experience with geriatric patients help improve nurses' attitudes, abilities, and interests (Alsenany, 2009).

In the same line, Figures 5 and 6 indicated that nurses strongly agreed that the nursing curriculum positively impacts their attitudes toward geriatric patients by increasing their empathy, compassion, and respect toward the elderly. The nursing curriculum also helped raise nurses' awareness about geriatric personalities and cognitive impairment and reduce bias and stereotypes. These notions are captured in participants' statements such as "Education on geriatric patients influences my attitude and gives me more empathy"; "The nursing curriculum contributed to my attitude in the care of geriatric patients as we have been educated on treating all patients with dignity"; "After learning how to properly care for geriatric patients, I became more understanding and sympathetic with the patients"; "Made me more compassionate and empathetic"; and "The curriculum also teaches you to treat the elderly with respect and to avoid stereotypes".

The aforementioned findings align with those of a study conducted by Kotzabassaki et al. (2002), which indicated that nursing students felt the nursing curriculum had supported them in being more positive about geriatric care. In conjunction with Hsieh and Chen (2018) on the importance of the inclusion of the gerontology program in the nursing curriculum to increase student knowledge, awareness, attitude, and skills in senior nursing care, it is not surprising that most nurses in my study found the nursing curriculum plays a crucial role in the development of their attitudes toward geriatric people. Topaz and Doron (2013) also emphasized that nurses discriminate against older patients in various ways; this result is unsurprising as geriatric content is missing the fundamental knowledge and skills in all Israeli nursing education.

In contrast, a small group of nurses reported that the nursing curriculum had a minor impact on their attitudes, as highlighted in comments such as: "It is good but needs to be

better when approaching unforeseen problems that students might encounter. Mental health of older adults seems to be left out". The remaining participants agreed that clinical work experience had a significant impact on their attitudes toward elderly care, as they learned to deal positively with elderly patients while working with them in the hospitals. For example, "My experience more than the school has contributed to my attitude toward geriatric patients. It takes additional patience and knowledge to care for this population which is not always recognized during learning", and "I think attitudes are formed more once working with the population" support these findings. I agree with Kotzabassaki et al. (2002) who stated that research findings haven't always been constant. On the one hand, some results suggested that the nursing curriculum had no impact on nurses' attitudes. On the other hand, some research studies reported that the nursing curriculum positively affects nurses' opinions and attitudes regarding seniors' nursing care.

Congruent with the current study findings, Kotzabassaki et al. (2002) revealed that interactions with elderly patients in geriatric clinical settings improved nursing students' attitudes. Likewise, these findings resonate with Hsieh and Chen (2018) and Alsenany's (2009) findings which indicated that clinical work experience in geriatric care helps develop nurses' positive attitudes.

The nursing curriculum impacts nurses' self-efficacy, as highlighted in Figures 8 and 9. Nurses exhibited agreement on many statements pertinent to the nursing curriculum significantly influencing their self-efficacy by understanding geriatrics needs and problems and providing knowledge and clinical practice in nursing school. Additionally, the nursing curriculum enhances nurses' self-efficacy by including e-modules, case scenarios, and simulations, as illustrated in the following comments: "With increased knowledge and

practicum opportunities, I was able to increase my confidence and ability to care for geriatric patients”; “Very well contributed to my self-efficacy, I’m very good when providing personal care to geriatric patients but this is because I have taken the initiative to learn through e-modules and gentle persuasive approach”; “Self-efficacy increased through clinical experience in school. Providing us with the opportunity to care for geriatric patients – both with and without dementia was useful. Recognizing what is considered normal in aging and what is not”; “I became more confident in providing nursing care for geriatric through the clinical practice in school”; and “Case scenarios and simulations with older patients is helpful”. My findings are similar to that of Lau et al. (2015) which emphasized a significant increase in nurses’ confidence and self-efficacy after gaining knowledge from a new aged care training program. These researchers suggested that geriatric nurses should receive continuing education to enhance their self-efficacy.

In comparison, some nurses agreed that the nursing curriculum had little or no impact on their self-efficacy and reported that work experience had a significant influence on the development of their self-efficacy. This finding was supported by the following statements: "It was not at all helpful"; “Just basic knowledge provided. Mostly self-efficacy came with years of experience”; "Personally speaking, I find to still be lacking in self-confidence due to lack of guidance and practice in the field. However, the untapped knowledge and theories are there. It'll just be a matter of learning experience and time"; "I became more confident in providing nursing care for geriatric through the practice in hospital"; and "I believe it gave me an adequate start, but working in long term care as a PSW gave me all of the knowledge and experience and self-confidence I have today." In light of this finding, it could be inferred that nursing students' clinical performance could be measured through

their self-efficacy level. The nursing curriculum should positively influence nurses' self-efficacy to provide the elderly with high-quality nursing care. These study findings are consistent with Soudagar et al. (2015), who asserted that more nursing experience contributed to improving nurses' self-efficacy. According to Bandura (1977), students with a lower level of self-efficacy prefer escaping from a situation that has resulted in dissatisfaction in the past. Consequently, nursing students and nurses may have low professional self-esteem, suffer massive turnover, and more likely to quit their work (Alavi, 2014). In addition, nurses with a high degree of self-efficacy are more self-reliant and confident in their skills. However, nurses with a low level of self-efficacy are less likely to take the required measures to support their patients. Thus, nursing students and clinical nurses need a high level of self-efficacy (Alavi, 2014). The current study findings were also supported by Soudagar et al. (2015), which revealed that high self-efficacy improves nurses' self-control and competence and helps them accomplish tasks more effectively.

According to the current study findings, it is obvious that factors affecting nurses' attitudes were nursing curriculum, working experience, clinical skills, knowledge level, and self-efficacy. Furthermore, my study findings demonstrated that the nursing curriculum is a significant element in developing nurses' attitudes, self-efficacy, knowledge, and practical skills. As such, the variation of nursing students and nurses' responses toward the nursing curriculum's impact on their knowledge, attitudes, and self-efficacy may be due to differing learning experiences.

Based on participants' self-reporting of various nursing curriculum in Canada, it is apparent that geriatric nursing is not a stand-alone course; it is included in the overall nursing curriculum. One standard nursing curriculum does not exist as every nursing

program creates its own curriculum; therefore, nurses had different learning experiences. Congruent with this study findings, Hirst et al. (2012) pointed out that nursing students, according to some studies, have negative attitudes towards older adults and dislike working with them; although, recent evidence shows that student attitudes are not standardized and can vary based on the learning environments. For example, nursing students' attitudes toward geriatric care can improve when they study in a supportive educational environment, while their attitudes can worsen when they interact with the elderly in a low-standard learning environment. I concur with Brabham (2018), who stated that the nursing curriculum is necessary to ensure that nurses and nursing students obtain the required knowledge, skills, experience, and attitudes to provide specific care to the elderly.

According to King et al. (2013), nursing education significantly impacts nurses' knowledge and attitudes; a geriatric nursing curriculum is essential for equipping nursing students with the knowledge and practical skills in elderly care. In the same line, Wells et al. (2004) asserted that geriatric curriculum improvement is crucial to enhancing nurses' attitudes toward caring for the elderly. These arguments are also congruent with Decker (2014), who claimed that geriatric education is essential. Nursing schools should pay more attention to including a separate gerontological course in the nursing curriculum to promote positive attitudes, increase knowledge and enhance self-efficacy toward geriatric care. In addition, besides the nursing curriculum and learning environment, nursing schools should also consider the educational staff as they can also influence nursing students' attitudes and self-efficacy. Kotzabassaki et al. (2002) found a statistically significant positive correlation between nursing students' attitudes and their nursing instructors' attitudes.

Based on study findings and the literature, I have addressed the research questions focusing on nurses and nursing students' attitudes, knowledge, and self-efficacy in providing geriatric care. My study findings revealed that most of the participants held neutral attitudes toward caring for geriatric patients. Their knowledge ranged from average to above average levels. In addition, the majority of study participants had an above average level of self-efficacy in terms of caring for geriatric patients. Related to the research question focusing on factors influencing nurses' perspectives, study findings found that age, years of experience, level of knowledge, and work status may affect nurses' attitudes. Additionally, study findings addressed the research question focusing on the relationship between nurses' attitudes, knowledge, and self-efficacy, highlighting a statistically significant positive correlation between nurses' attitudes, knowledge level, and self-efficacy. Finally, my study findings provide a clear understanding of the nursing curriculum's impact on nurses' attitudes, knowledge, and self-efficacy. Most participants reported that the nursing curriculum significantly influenced their knowledge, attitudes, and self-efficacy, while others felt that the nursing curriculum was either a little helpful or not helpful, and work experience provided them a lot of knowledge and skills and helped them to deal more positively with geriatric patients.

Significance of the study findings

This study's findings contribute to the current body of literature related to the knowledge, attitudes, and self-efficacy of Canadian nurses and nursing students toward elderly nursing care. This study, in particular, addresses the gap in attitudes toward elderly care among Canadian nurses and nursing students. The research also enriches the existing

literature on Canadian nursing curriculum's impact on the nurses and nursing students' attitudes, self-efficacy, and knowledge.

Based on the results, nursing students' attitudes, knowledge, and self-efficacy may be enhanced for high-quality geriatric nursing care through recognizing knowledge, practical skills, and communication skills gaps in the nursing curriculum. This study also contributes insights into nursing programs by providing information and data to curriculum developers, nursing instructors, and nursing administrators that can guide them through designing the appropriate nursing curriculum.

Chapter VI: Conclusion

The current study aimed to examine the knowledge, skills, attitude, opinions, and self-efficacy of nursing students and practicing nurses toward caring for geriatric patients and addressing the factors that influenced their attitudes. I was also interested in exploring knowledge and skills gaps in nursing curricula, identifying the basic academic requirements of nursing students, and finally, providing recommendations for reconfiguring the nursing curriculum based on the required knowledge and skills for comprehensive geriatric nursing care. In order to attain the purpose of this study, a mixed-method research design was used. This research design was utilized, as it helped the researcher examine the nurses' attitudes, knowledge, and self-efficacy toward elderly care and examine the contribution of the nursing curriculum.

Based on the literature, results regarding nurses and nursing students' knowledge, attitudes, and self-efficacy toward the elderly group appeared to be inconsistent. The current study findings revealed that most Canadian nurses and nursing students possess average knowledge levels, neutral attitudes, and moderate self-efficacy toward caring for the geriatric population. In addition, study findings showed that the majority of nurses reported that the nursing curriculum had a positive influence on their knowledge, attitudes, and self-efficacy. At the same time, the remaining participants agreed that working experience greatly impacted their knowledge, attitudes, and self-efficacy. Ultimately, study findings demonstrated a statistically significant correlation between nurses' knowledge level, attitudes, and self-efficacy while statistical significance were not found among these variables and nurses' demographic data.

It is apparent that the study findings addressed the research questions and the analysis of nursing curricula, by participants, revealed specific strengths and weaknesses which could be used as a guide for future iterations. However, the literature gap related to the reasons behind nurses' attitudes is not directly addressed in this study. According to some existing research, nurses' attitudes toward the elderly are affected by their own beliefs, views, traditions, religion, experiences, cultural background, education level, and socio-demographic data. Therefore, there is a need to design and conduct domestic and international evidence-based research on the influencers of nurses' attitudes.

Nursing Implications and Recommendations

Based on the study findings, there are several implications and recommendations for nursing education. Firstly, it is recommended that geriatric nursing courses be mandatory separate course in nursing education to enhance nursing students' knowledge and skills. Secondly, it is suggested to combine the geriatric nursing course with a clinical practicum course to increase nursing students' practice experience toward seniors' care. Thirdly, it is recommended that more concentration be given to the geriatric curriculum, including topics regarding healthy aging, rather than focusing only on the dysfunctions and mental illness associated with aging.

Additionally, some suggestions for improving nursing students' attitudes and self-efficacy include increasing students' practical training with geriatric patients by inspiring them to act independently and under close supervision. Likewise, the nursing educator should be a good model for their students as they deal positively with elderly patients and provide continuous and productive feedback to nursing students. Finally, I strongly recommended following Bandura's self-efficacy theory's fundamental beliefs such as role

modeling, verbal encouragement, and mastery experience to enhance the nursing curriculum by incorporating them into the teaching and learning strategies to improve nursing students' performance.

Limitation

One limitation of this study is the difficulty recruiting participants. Due to the COVID-19 pandemic, hospitals were overwhelmed and most of the nursing administrators refused to distribute the survey link among nurses. Similarly, different nursing programs apologized in advance for not sending study materials to their students, and justified their decision based on online learning.

Another limitation is the lack of access to the nursing curricula across the programs. As a result, there could be self-reporting biases in participants' accounts of the role of curriculum in nursing education.

An additional limitation is that some participants skipped the open-ended questions, limiting the study's external validity by preventing generalization to all nursing students in Canada. Finally, the research was conducted with a small sample (n=90), and this may not be representative of Canadian nursing schools and hospitals, in general.

Future Research

This study explored nurses and nursing students' attitudes, knowledge, and self-efficacy toward elderly nursing care, as well as assessing the influences of the nursing curriculum on nurses' knowledge, attitudes, and self-efficacy. Future studies should aim to survey a significant sample from different settings, along with various geographical areas in Canada to allow generalization of findings.

While literature suggests a relation between the attitudes of nursing students and their nursing instructors' attitudes, future studies should aim to investigate the attitudes and perceptions of nursing educators toward geriatric nursing education. More prospective studies should aim to address the factors affecting nurses' attitudes. Similarly, future research should investigate nurses' self-efficacy in order to expand the body of literature on this subject.

More comprehensive and well-defined studies may yield more accurate and valid results. According to the study findings and literature, the nursing curriculum significantly impacts nurses' attitudes. Future studies should aim to analyze the curriculum content in different nursing programs to identify the knowledge deficit.

Concluding Remarks

In closing, this study has provided the opportunity to reflect on the attitudes, knowledge, and self-efficacy of nurses and nursing students toward elderly care. In this research, most nurses and nursing students displayed neutral attitudes regarding geriatric patients and had an average level of knowledge and self-efficacy. It is essential to remember and ultimately recognize that the nursing curriculum positively impacted most nurses' attitudes, perceptions, understanding, and self-efficacy. While study findings identified some of the influencers affecting nurses' attitudes, I recommend that future research explore more factors that influence nurses' views and perception, and future studies focus on the attitudes of nursing instructors and faculty members regarding elderly care.

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Appendices

Appendix A: Survey

Part A: Nursing Demographic Questionnaire

1. Age: 20-25 26-30 31-40 40+
2. Gender:
 - a. Male
 - b. Female
 - c. Transgender
 - d. Gender neutral
 - e. Non-binary
 - f. Agender
 - g. Pangender
 - h. Genderqueer
 - i. Two-spirit
 - j. Third gender
3. Current work status:
 - a. Student
 - b. Work
 - c. If work, number of year(s) of experience:
4. Marital Status:
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widowed

5. Have you received or are receiving training for geriatric care? Yes No

Part B: The Older Patient in Acute Care Survey – United States (OPACS-US)

The survey is divided into two sections – a) Nursing Practice Experience and b)

General Opinion. Please choose the number that best describes your experience on each question (SD=strongly disagree; D=disagree; N= neutral; A=agree; SA=strongly agree)

a) Nursing Practice Experience	SD 1	D 2	N 3	A 4	SA 5
1. *I find older patients difficult to care for. 2. I find it necessary to observe older patients more closely than I observe younger patients. 3. I am more likely to speak in simple language to an older patient than to a younger patient. 4. I tend to speak slower when I talk with an older patient. 5. I tend to speak louder when I talk with an older patient. 6. I tend to speak more socially with an older patient. 7. I tend to speak more socially with a younger patient. 8. *I am more likely to use terms of endearment (i.e., ‘sweetie, honey’) with older female patients than with younger female patients. 9. *I am more likely to use terms of endearment (“pops”, “gramps”) with older male patients than with younger male patients. 10. I allow extra time when I am going to admit an older patient. 11. I find it more difficult to obtain a comprehensive health history from an older patient than a younger patient. 12. I use a health assessment tool specifically designed for older patients.					

<p>13. I find it necessary to watch confused older patients closely.</p> <p>14. *I am more likely to use some form of restraint on an older patient than on a younger patient.</p> <p>15. I offer/order personal hygiene assistance for older patients more often than for younger patients.</p> <p>16. I ask older patients if they require assistance with their activities of daily living more often than I ask younger patients.</p> <p>17. *I have difficulty finding an older patient's pulse.</p> <p>18. I ask older patients if they have incontinence problems.</p> <p>19. I involve an older patient's family/caregiver in their care.</p> <p>20. I explain medications more than once to older patients to ensure understanding.</p> <p>21. I am less likely to encourage self-medication (i.e. insulin pump, inhaler) while in the hospital to an older patient than a younger patient.</p> <p>22. I ask older patients if they have pain more often than I ask younger patients.</p> <p>23. I ask older patients if they require pain relieving medication more often than I ask younger patients.</p> <p>24. I am more likely to ask an older patient if they would like something to help them sleep than I ask a younger patient.</p> <p>25. I am more likely to ask an older patient if they would like to see a chaplain or clergy person than a younger patient.</p> <p>26. I begin discharge planning earlier in an older patient's stay than in a younger patient's stay.</p> <p>27. I allow more time to prepare an older patient for discharge than a younger patient.</p> <p>28. I find it easier to cope with the death of an older patient than a younger patient.</p>					
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b) General Opinion	SD 1	D 2	N 3	A 4	SA 5
1. I like to care for older patients.					
2. *Older patients are confused.					
3. *Older patients pretend not to hear you.					
4. *Older patients are a nuisance to care for.					
5. *Older patients are more likely to be depressed than younger patients.					
6. *Older patients have to follow special diets.					
7. *Older patients do not know the actions and interactions of their medications.					
8. *Older patients require less pain-relieving medication than younger patients.					
9. *Older patients become addicted to sleeping medications easily.					
10.*Incontinent patients are bothersome.					
11.*Urinary incontinence is part of the aging process.					
12.Older patients are more concerned with their bowel habits than younger patients.					
13.Younger patients are embarrassed when their bodies are exposed.					
14.*Too many older patients receive life-sustaining treatment.					
15.Older patients have more discharge problems than do younger patients.					
16.At the time of discharge older patients are likely to be more dependent than younger patients.					
17.Older patients require placement in long term care following a hospital admission.					

<p>18.*Older patients have extensive lengths of stay and take up beds that could be used for sicker patients.</p>					
<p>19.*There are too many older patients in acute care hospitals.</p>					
<p>20.It would be a good idea for all hospitals to have an acute geriatric unit.</p>					
<p>21.Older patients are likely to be on more medication when admitted to the hospital than younger patients.</p>					
<p>22.Older patients become confused in a new setting.</p>					
<p>23.Older patients feel isolated in the acute care setting.</p>					
<p>24.*In the hospital, eating and drinking are the most common activities performed by older patients.</p>					
<p>25.Older patients have more skin problems than younger patients.</p>					
<p>26.Older patients are more likely to require assistance with mobility than younger patients.</p>					
<p>27.A lot of older patients have stiff joints.</p>					
<p>28.Older patients tend not to tell health professional if they are incontinent.</p>					
<p>29.Older patients experience changes in bowel elimination patterns in the acute care setting.</p>					
<p>30.Older patients are more likely to have open surgical procedures than laparoscopic surgery</p>					
<p>31.Older patients become confused after operations/procedures.</p>					
<p>32.Older patients are more likely to develop post-operative complications.</p>					
<p>33.Older patients are particularly prone to nosocomial infections.</p>					
<p>34.Early discharge is difficult to achieve with older patients.</p>					

Part C: Knowledge-about-Older-Patients Quiz (KOP-Q) for Nurses

For each statement, please answer “True” or “False”.

Statement	True	False
1. Forgetfulness, concentration issues are parts of aging rather than indicators of depression.		
2. Unexpected urinary incontinence in an older person may indicate that the person is suffering from a urinary tract infection.		
3. Patients with a cognitive disorder, such as dementia, are at increased risk for delirium.		
4. Malnutrition can have negative effects on thinking and observation skills.		
5. In general, older people are more sensitive to medication because their kidney and liver functions are declining.		
6. Meeting with families during patient assessment is only required for persons suffering from dementia.		
7. Patients rarely remember that they were anxious and/or restless during delirium.		
8. Older people need less fluid because they exercise less.		
9. Asking patients whether they have fallen in the past 6 months is a good way of assessing increased risk of falling.		
10. Pressure that cuts off the blood supply to tissue for two hours may result in pressure ulcers.		
11. Depression is recognized in older people less frequently than it is in younger people.		
12. It is good to have older people drink more often, because they have a reduced thirst sensation.		
13. In the case of delirium, bright lighting should be used to illuminate all of the corners of the room.		

<p>14. Medication may cause geriatric problems such as memory deficits, incontinence, falling and depression.</p> <p>15. Overburdening of family caregivers may lead to abuse of the person for whom they are providing care.</p> <p>16. It is good to provide extensive instruction about how to complete tasks to patients suffering from apraxia.</p> <p>17. When speaking to hearing-impaired older patients, it is best to speak at normal volume.</p> <p>18. In the case of difficulty swallowing, all medicines must be ground to ensure that patients ingest them.</p> <p>19. In the case of depression, memory problems may occur.</p> <p>20. Most family caregivers do not need additional support from homecare services.</p> <p>21. As a nurse, you have to speak clearly into the ear of the hearing-impaired older patient.</p> <p>22. Pain medication should be administered to older people as little as possible, due to the possibility of addiction.</p> <p>23. We identify pressure ulcers only if blister formation or abrasions have occurred.</p> <p>24. In the case of delirium, activities should be spread out evenly over the day.</p> <p>25. The risk of falling is higher for people in the hospital setting compared with those who are living at home.</p> <p>26. Stress incontinence may occur in patients who are not capable of opening their own trousers.</p>		
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Part D: General Self-Efficacy Scale (GSE)

	Not at all true	Hardly true	Moderately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough.				
2. If someone opposes me, I can find the means and ways to get what I want.				
3. It is easy for me to stick to my aims and accomplish my goals.				
4. I am confident that I could deal efficiently with unexpected events.				
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.				
6. I can solve most problems if I invest the necessary effort.				
7. I can remain calm when facing difficulties because I can rely on my coping abilities.				
8. When I am confronted with a problem, I can usually find several solutions.				
9. If I am in trouble, I can usually think of a solution.				
10. I can usually handle whatever comes my way.				

Part E: Curriculum Influence on Nursing Practices

1. How has the nursing curriculum contributed to nurses' knowledge in the care of geriatric patients?

2. How has the nursing curriculum contributed to nurses' attitudes in the care of geriatric patients?

3. How has the nursing curriculum contributed to nurses' self- efficacy in the care of geriatric patients?



Appendix B: Email Script for Recruitment

Invitation to participate in research study

Hello,

You are being invited to participate in a study that Dr. Isha Decoito and Amany Mohamed, are conducting. Briefly, the study is entitled: *Exploring Nurses and Nursing Students' Knowledge, Attitudes and Self- Efficacy in Caring for The Elderly*. The study aims to explore the knowledge, skills, attitude, opinions and self-efficacy of nurses in practice and nursing students toward caring for geriatric patients, and addressing the factors contributing to their attitudes.

As a participant in the study, you will be invited to complete an online survey about your knowledge, experience, self-efficacy and opinion toward caring for the geriatric population. The survey will take approximately 30 minutes to complete. If you would like to participate in this study, please click on the link below to access the letter of information and survey (https://uwo.eu.qualtrics.com/jfe/form/SV_38XUF9zrHTLp0qx).

Please note that a reminder email will be sent in a week from today.

If you would like more information about this study, please contact the researcher at the contact information provided below.

We highly appreciate your cooperation.

Thank you,

Dr. Isha Decoito
Faculty of Education
Western University

or

Amany Mohamed
Faculty of Education
Western University



Appendix C: Letter of Information and Implied Consent

Study Title:

Exploring nurses and nursing students' knowledge, attitudes, and self- efficacy in caring for the elderly.

Document Title:

Letter of Information and Consent.

Principal Investigator:

Dr. Isha DeCoito, Faculty of Education, Western University.

Additional Research Staff + Contact

Amany Mohamed, Faculty of Education, Western University.

Invitation to participate

You are being invited to participate in a research study conducted by researchers at Western University, focusing on assessing the knowledge, attitudes, and self-efficacy of nursing students and nurses toward caring for the geriatric population. The purpose of this letter is to provide you with the information required to make an informed decision regarding your participation in this research study. Please read the information below and ask questions about anything you do not understand before deciding whether to participate or not.

Background/Purpose

The purpose of this study is to explore the knowledge, skills, attitude, opinions and self-efficacy of nurses in practice and nursing students toward caring for geriatric patients, and addressing the factors contributing to their attitudes.

Procedures

If you decide to participate, you will be invited to complete an online survey. It is expected that the online survey will take 30 minutes to complete. By choosing to start the survey, you will indicate your implicit consent to participate in the study. If you do not wish to participate, do not click "submit" for reasons explained next. No direct identifiers are included in the survey so, once submitted, the researchers will not be able to withdraw your data; however, if at any point while completing the survey (before clicking "submit") you decide that you do not want to submit your data, you can close the site. The data will be removed before analysis as it is difficult for the researchers to withdraw your data while starting data analysis procedures.

Inclusion criteria

To be eligible to participate in this study, you need to be a) an undergraduate nursing student (bachelor's degree) in year three and four of your program, or b) a new nursing graduate with less than one year of work experience, or c) a new nursing graduate with 1 to 5 years of work experience, or d) a nurse with extensive work experience (more than five years).

Risks

There are no known or anticipated risks or discomforts associated with participating in this study.

Benefits

You may not directly benefit from participating in this study, but information gathered may provide benefits that will increase the awareness of the nursing curriculum developers and instructors about the academic requirements of nursing students to enhance the nursing curriculum and improve the quality of geriatric nursing care.

Confidentiality

Participation in the study is voluntary. The data collected will be used only for research purposes and will be stored and archived securely. Any information that could identify you will not be used in any publication or presentation of the study results. Study data may be viewed by the Western University Health Sciences Research Ethics Board to monitor this study's conduct. All collected data will be destroyed after seven years, as per Western University policy. Your survey responses will be collected anonymously through a secure online survey platform called Qualtrics. Qualtrics uses encryption technology and restricted access authorizations to protect all data collected. In addition, Western's Qualtrics server is in Ireland, where privacy standards are maintained under the European Union safe harbor framework. The data will then be exported from Qualtrics and securely stored on Western University's server. Study data will be retained by the Principal Investigator for a minimum of 7 years after project completion per Western University's Faculty Collective Agreement.

Compensation

You will not be compensated for your participation in this research.

Rights as a Participant

Your participation in this study is voluntary. You may decide not to be in this study. Even if you consent to participate you have the right to not answer individual questions or to withdraw from the study at any time. You do not waive any legal right by consenting to this study.

Questions about the Study

If you have any questions about the study please contact the principal investigator, Dr. Isha Decoito or the co-investigators Amany Mohamed.

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics (519) 661-3036, 1-844-720-

9816, email: ethics@uwo.ca. This office oversees the ethical conduct of research studies and is not part of the study team. Everything that you discuss will be kept confidential.

Publication

The results of the study will be made public via peer reviewed publications and presentations. If the results of the study are published, any identifiable information will not be used.

Consent

Survey: Submitting the online survey is an indication of your consent to participate. This consent will be confirmed by checking a consent box at the beginning of the questionnaire.

This letter is yours to keep for future reference.



Appendix D: Reminder Email Script for Recruitment

Invitation to participate in research study

Hello,

This email is a follow up to the one sent a week ago, and a gentle reminder about your potential participation in our study.

You are being invited to participate in a study that Dr. Isha Decoito and Amany Mohamed, are conducting. Briefly, the study is entitled: *Exploring Nurses and Nursing Students' Knowledge, Attitudes and Self- Efficacy in Caring for The Elderly*. The study aims to explore the knowledge, skills, attitude, opinions and self-efficacy of nurses in practice and nursing students toward caring for geriatric patients, and addressing the factors contributing to their attitudes.

As a participant in the study, you will be invited to complete an online survey about your knowledge, experience, self-efficacy, and opinion toward caring for the geriatric population. The survey will take approximately 30 minutes to complete. If you would like to participate in this study, please click on the link below to access the letter of information and survey (https://uwo.eu.qualtrics.com/jfe/form/SV_38XUF9zrHTLp0qx).

If you would like more information about this study, please contact the researcher at the contact information provided below.

We highly appreciate your cooperation.

Thank you,

Dr. Isha Decoito
Faculty of Education
Western University

or

Amany Mohamed
Faculty of Education
Western University

Appendix E: Email for Nursing Administrators

Dear Sir/Madam

My name is Amany Mohamed, and I am an MA student, under the supervision of Dr. Isha DeCoito in Curriculum Studies at the Faculty of Education, Western University. My research study is entitled: Exploring Nurses and Nursing Students' Knowledge, Attitudes, and Self-Efficacy in Caring for The Elderly. The study aims to explore the knowledge, skills, attitude, opinions, and self-efficacy of nurses in practice and nursing students toward caring for geriatric patients and addressing the factors contributing to their attitudes. My email to you is for the purpose of informing you about my study, requesting the nursing curriculum which applied in your nursing program and seek your assistance in recruiting participants for my study.

Benefits of the Study

Participants may not directly benefit from participating in this study, but information gathered may provide benefits that will increase the awareness of nursing curriculum developers and instructors about the academic requirements of nursing students to enhance the nursing curriculum and improve the quality of geriatric nursing care.

I am contacting you ask for the nursing curriculum which applied in your nursing program to compare it with the standards framework developed by the Colleges of Nurses of Ontario (CNO) to determine if there is a gap in knowledge or skills in the this curriculum. Also, I ask for your help in recruiting the study participants from nurses/nursing students. Participants will be invited to complete an online survey about their knowledge, experience, self-efficacy, and opinion toward caring for the geriatric population. The survey will take approximately 30 minutes to complete.

Kindly forward the attached study materials (information letter, email recruitment script, reminder email recruitment script, and the link for the online survey) to the potential participants on behalf of the researchers (Dr. Isha DeCoito and Amany Mohamed). Please note that a reminder email will be sent a week from sending the recruitment email.

If you would like more information about this study, please contact the researcher at the contact information provided below.

We highly appreciate your cooperation.

Thank you for your assistance.

Dr. Isha Decoito
Faculty of Education
Western University

or

Amany Mohamed
Faculty of Education
Western University

Appendix F: Email for The College of Nurses of Ontario (CNO) Administrators

Dear Sir/Madam

My name is Amany Mohamed, and I am an MA student, under the supervision of Dr. Isha DeCoito in Curriculum Studies at the Faculty of Education, Western University. My research study is entitled: Exploring Nurses and Nursing Students' Knowledge, Attitudes, and Self-Efficacy in Caring for The Elderly. The study aims to explore the knowledge, skills, attitude, opinions, and self-efficacy of nurses in practice and nursing students toward caring for geriatric patients and addressing the factors contributing to their attitudes. My email to you is for the purpose of informing you about my study and seek your assistance in obtaining the standard framework of the nursing curriculum in Ontario. I will compare the nursing curriculum applied in different nursing colleges/universities in Ontario by comparing their course outline to the standards framework developed by the Colleges of Nurses of Ontario (CNO) to determine if there is a gap in knowledge or skills in the colleges' curriculum.

Benefits of the Study

Participants may not directly benefit from participating in this study, but information gathered may provide benefits that will increase the awareness of nursing curriculum developers and instructors about the academic requirements of nursing students to enhance the nursing curriculum and improve the quality of geriatric nursing care.

If you would like more information about this study, please contact the researcher at the contact information provided below.

We highly appreciate your cooperation.

Thank you for your assistance.

Dr. Isha Decoito
Faculty of Education
Western University

or

Amany Mohamed
Faculty of Education
Western University

Ethical Approval



Date: 11 December 2020

To: Dr. Isha DeCoito

Project ID: 118004

Study Title: Exploring Nurses and Nursing Students' Knowledge, Attitudes and Self-Efficacy in Caring for the Elderly

Application Type: HSREB Initial Application

Review Type: Delegated

Meeting Date / Full Board Reporting Date: 12/Jan/2021

Date Approval Issued: 11/Dec/2020

REB Approval Expiry Date: 11/Dec/2021

Dear Dr. Isha DeCoito

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above mentioned study as described in the WREM application form, as of the HSREB Initial Approval Date noted above. This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Study Proposal, December 10	Protocol	10/Dec/2020	02
Appendix A. Survey, December 10	Online Survey	10/Dec/2020	02
Appendix B Recruitment Email, December 10	Email Script	10/Dec/2020	02
Appendix C Letter of information, December 10	Written Consent/Assent	10/Dec/2020	02
Appendix D Reminder Recruitment Email Script, December 10	Email Script	10/Dec/2020	01
Appendix E Email for administration of nursing colleges, hospitals, December 10	Email Script	10/Dec/2020	02
Appendix F Email for CNO administration, December 10	Email Script	10/Dec/2020	01

Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
Reference List, December 10	References	10/Dec/2020	02

No deviations from, or changes to, the protocol or WREM application should be initiated without prior written approval of an appropriate amendment from Western HSREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Please do not hesitate to contact us if you have any questions.

Sincerely,



Date: 2 February 2021

To: Dr. Isha DeCoito

Project ID: 118004

Study Title: Exploring Nurses and Nursing Students' Knowledge, Attitudes and Self- Efficacy in Caring for the Elderly

Application Type: HSREB Amendment Form

Review Type: Delegated

Meeting Date / Full Board Reporting Date: 23/Feb/2021

Date Approval Issued: 02/Feb/2021

REB Approval Expiry Date: 11/Dec/2021

Dear Dr. Isha DeCoito ,

The Western University Health Sciences Research Ethics Board (HSREB) has reviewed and approved the WREM application form for the amendment, as of the date noted above.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Study Proposal, February,1	Protocol	01/Feb/2021	01
Recruitment form, February 1	Recruitment Materials	01/Feb/2021	01

Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
Summary of Changes document, January 29	Summary of Changes	29/Jan/2021	01

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Patricia Sargeant, Ethics Officer (psargean@uwo.ca) on behalf of Dr. Philip Jones, HSREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Curriculum Vitae

Name: Amany Mohamed

Full-time: Yes

Post-secondary Education:

Degree	Institution	Department	Year
PhD	Cairo University	Faculty of Nursing	2012
M.Sc.	Cairo University	Faculty of Nursing	2006
B.Sc.	Cairo University	Faculty of Nursing	1997

Related Work Experience:

Date	Position	Department	Institution
2015	Assistant Professor	Medical-Surgical Nursing	El Battargy Medical College (Jeddah, Saudi Arabia).
2012-2017	Lecturer	Medical-Surgical Nursing	Faculty of Nursing (Cairo University, Egypt)
2006-2012	Assistant Lecturer	Medical-Surgical Nursing	Faculty of Nursing (Cairo University, Egypt)
1998-2005	Clinical Instructor	Medical-Surgical Nursing	Faculty of Nursing (Cairo University, Egypt)
1996-1997	Internship Year	Emergency and Critical Care	University Hospital (Cairo University, Egypt)

Publications

-Published paper in *Journal of American Science* under the title “The impact of a designed protocol of nursing care on acute spinal injuries patient’s functional status” at El Manial University Hospital.

- Health-Related Quality of Life in patients with chronic hepatitis C receiving Sofosbuvir-Based Treatment, with and without Interferon: a prospective observational study in Egypt.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5251342/>