

Exploring Nurses' and Nursing Students' Self-Efficacy and Mindsets in Caring for the Elderly in Canada

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Abstract

Background: *The elderly population is considered the most significant health care consumer and caring for them is among the most challenging issue of public health and social care systems. Providing nursing students with the required skills and knowledge related to the senior population's care will promote their self-efficacy and mindsets.*

Aims: *This study explores nurses' and nursing students' self-efficacy and mindsets in caring for the elderly, examines the nursing curriculum's contributions to nurses' self-efficacy and mindsets, and provides suggestions for reconfiguring the nursing curriculum for comprehensive geriatric nursing care.*

Methods: *A mixed-method research design was used, and quantitative and qualitative data were collected from 90 nurses and nursing students through an online questionnaire. Data were analyzed via SPSS and NVivo 12 software programs.*

Results: *The results revealed that most nurses had an above-average level of self-efficacy toward caring for geriatric patients. A statistically significant positive correlation between self-efficacy and nurses' attitudes, knowledge level, and years of experience was revealed. This study demonstrated the positive impact of the Canadian nursing curriculum on nurses' self-efficacy.*

Conclusion: *The current study recommends incorporating the fundamental beliefs of Bandura's self-efficacy theory—which include role modeling, verbal encouragement, and mastery experience—into teaching and learning strategies to enhance the nursing curriculum and improve nursing students' performance.*

Keywords: nurses' self-efficacy, nurses' mindset, nursing curriculum, geriatric nursing care, curriculum development, contribution of nursing curriculum

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Exploring Nurses' and Nursing Students' Self-Efficacy and Mindsets in Caring for the Elderly in Canada

Nursing is a unique profession. It is not just about providing medication or therapy, but about the protection and enhancement of an individual's well-being (ICN, 2002). It involves mercy and compassion. Due to medical advances and lifestyle improvements, individuals' life expectancy is increasing. The World Health Organization (WHO, 2018) indicated that from the year 2015 to 2050, the global population has been aging and will continue to age, and the percentage of people over 60 years of age will increase from 12% to 22%. Similarly, the Canadian Institute for Health Information (CIHI, 2017) reported that seniors who are 75 years old and older are rising at a faster rate than before. Over the last 40 years, Canadians have increased in numbers largely due to the senior population, which grew from around 2 million to 3.5 million between 1977 and 1997. In 2017, this population stood at around 6.2 million, with an expected increase to 10.4 million by 2037 (CIHI, 2017). Statistics Canada reported that there are currently approximately 5.9 million seniors in the country, compared to 5.8 million citizens aged 14 or younger. By 2031, about 23% of Canadians will be senior citizens (Grenier, 2017). By 2061, Canada is predicted to have 12 million senior citizens (Grenier, 2017). The CIHI (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 same CIHI report estimates that between 2017 and 2037, the population of older seniors (75 years old or more) in each province and territory will increase dramatically—for example, by 2.1 times in Ontario, 2.0 times in Quebec, 2.8 times in Alberta, 2.9 times in Yukon, and 2.1 times in British Columbia. In Ontario, the geriatric population 65 years of age and older is the fastest growing population. By 2041, 25% of Ontario's population is expected to

be 65 or older (Ministry for Seniors and Accessibility, 2017). Furthermore, King et al. (2013) estimated that 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 homecare trips and 90% of nursing home-use stays. These statistics are expected to rise as the population continues to grow.

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 study detailed in this article explored nurses' self-efficacy and mindsets toward geriatric patients and identified nursing curricula knowledge and skills deficits while also recognizing the essential academic requirements of nursing students. Bandura (1994/1998) defines self-efficacy as an individual's confidence in their ability to succeed in a specific task or situation. Goldstein et al. (2013) define mindset as a set of beliefs, thoughts, or concepts that influence our thinking, feeling, and behaviours in various situations. Fixed and growth mindsets are differentiated, with the former being resistant to change and the latter fosters building skills with work and effort (Gemino et al., 2018). Thus, mindset leads to external action and can be changed.

The following questions guided the research: What are nurses and nursing students' self-efficacy and mindsets in terms of providing geriatric care? What is the relationship between nurses' self-efficacy, attitudes, and knowledge when caring for geriatric patients? and How has

the nursing curriculum contributed to nurses' self-efficacy and mindsets in caring for geriatric patients?

Literature Review

Elderly individuals can present with numerous health problems (Vann, 2016). The WHO (2017) reported that physical, neurological, and psychological diseases among geriatric individuals 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 disease, influenza, and neurovascular disorders are the most common chronic health issues among the elderly. The WHO (2017) stipulates that the well-being and mental health of the elderly is essential, as it is at any other life stage, and nurses should be aware of the health needs and health problems of the geriatric population. Moreover, older people are the most vulnerable group in society and are at risk for multiple diseases, including infectious diseases. This is especially true in 2022 due to the COVID-19 pandemic. The WHO (2020) states that people 65 years of age or older are more likely to have severe COVID-19 infection because their immune systems are changing with age, making it more challenging for them to control pathogens and viruses. Therefore, older people are more likely to have chronic health problems such as acute pneumonia, which make living with and recovering from COVID-19 more challenging. According to WHO (2020) and the Centers for Disease Control and Prevention (CDC, 2020), individuals of all ages can be infected with the latest COVID-19 variant, 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). It is apparent that elderly populations require close monitoring of their health statuses to reduce the complexity of their chronic illnesses and to keep them safe from communicable diseases (Vann, 2016).

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 functions (ICN, 2002). Nurses have been described as the primary health care resource who are ideally prepared to fulfill the demands of an aging population on the health care system (King et al., 2013). Deasey et al. (2014) contend that nurses play a crucial role in providing medical services for elderly patients with a supportive environment and positive outcomes. Similarly, Rush et al. (2017) stated that well-prepared geriatric nurses are essential for providing high-quality care for elderly patients.

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) conducted a systematic review of international research (English and Chinese language publications since 2000) related to nurses' attitudes towards older people. They reported that some nurses view the elderly as a burden and that they found elderly care annoying. Dikken et al. (2017) asserted that some nurses in the Netherlands have a negative attitude towards older patients, while King et al. (2013) reported on studies in the United States that found that many nursing students who had positive attitudes toward elder care did not work in

the field of elder care. As a result, there is a severe lack of caregivers with experience in geriatric care.

The geriatric population may suffer from different forms of discrimination or ageism from society, and this appears to be no different in the health care sector. This is confirmed by Wyman et al. (2018), who revealed that nursing students and registered nurses in Sweden, and nursing students in Greece showed a common lack of interest in working with older adults. These researchers observed that in addition to the poor communication quality, care provided to geriatric individuals is accompanied by ageism. To clarify, some nurses in this study 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. Other students in this study mentioned, however, that they were sympathetic and treated older patients kindly while caring for them. Still, these students reported that they had language barriers and relationship difficulties with their elderly patients. Another study conducted in Iran confirmed that nurses possess negative attitudes toward geriatric patients at public hospitals in Ilam city (Arani et al., 2017b).

Topaz and Doron (2013) argued that nurses' attitudes are changeable and vary from country to country. For instance, they discovered that several researchers in the United States, Joran, and Australia reported that nurses had positive reactions toward geriatric care. Still, Topaz and Doron (2013) found that negative attitudes toward the elderly were recorded in many hospitals in Sweden and Ireland. Deasey et al. (2014) found that culture, religious, social structures, and the beliefs of individual nurses affect the care of geriatric patients.

It is noteworthy to mention that the literature did not mention the leading causes behind 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 attitudes and mindsets 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) asserted that healthcare practitioners' attitudes influence the standard of care provided. Therefore, it is essential to assess nurses' self-efficacy and mindsets toward geriatric patients to identify their perceptions and actions toward the geriatric population. In addition, exploring 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 is essential. In that way, reforming nurses' attitude can be a focus of the curriculum, thus resulting in an improved standard of health care for the elderly.

Conceptual Framework

This study uses Bandura's (1977) self-efficacy theory, a social learning theory that explains human experience in terms of constant reciprocal contact between emotional, cognitive, behavioural, and social stimuli. Self-efficacy theory is a classic theory in which Bandura highlights the importance of observing and analyzing other people's behaviours, attitudes, and emotional responses (David, 2019). Bandura (1977) argued that self-efficacy is an essential

concept in positive psychology and a crucial prerequisite for behavioural modification. Bandura (1994/1998) defined self-efficacy as “people’s beliefs about their capabilities to produce designated levels of performance” (p. 2). In other words, self-efficacy beliefs describe how people feel, perceive, inspire, and act (Bandura, 1994/1998). 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 human beings (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. 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, tension, and stress. 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, and self-efficacy helps us deal with stress, high self-efficacy thus acts as an effective barrier between work stress and burnout. It is evident that self-efficacy influences our behaviours and beliefs, and high levels of self-efficacy can lead to positive behaviours and attitudes.

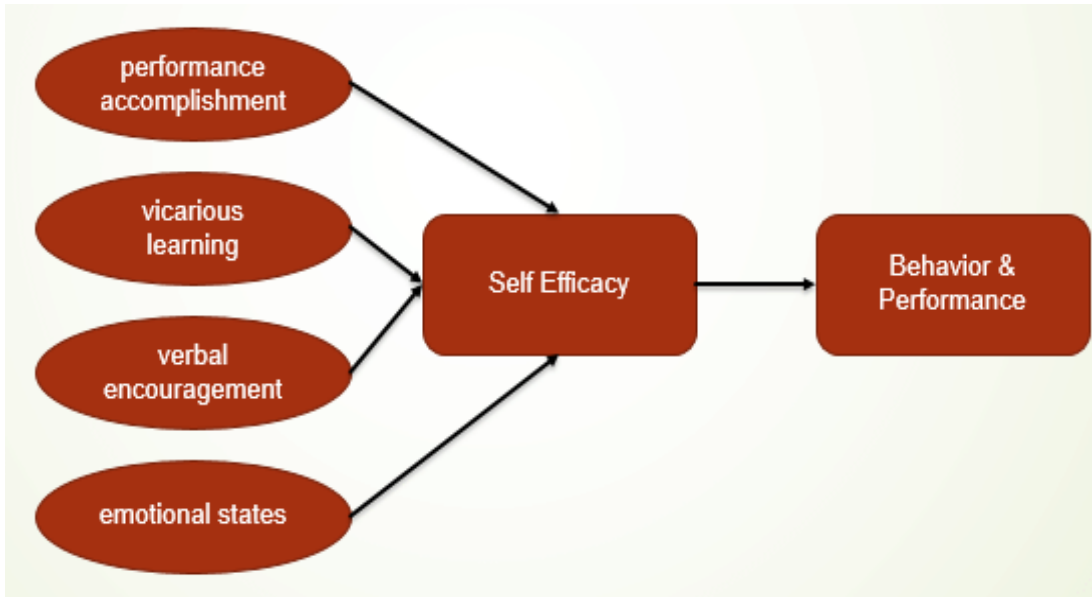
According to Bandura (as cited in Akhtar, 2008), mastery experiences, vicarious experiences or role modeling, verbal encouragement, and emotional states are the four primary sources of self-efficacy beliefs. If mastery experiences encourage self-efficacy as Bandura suggests, then increased hands-on experience 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 effectively. It is vital for nurses and other healthcare professionals to have a sense of self-efficacy in their ability to provide ’nursing care that benefits their patients (Ackerman, 2019).

Self-efficacy theory is a relevant framework for this research study as it can help nursing educators plan out their instruction and support student learning in ways that empower nursing students and enhance their self-confidence and self-efficacy. This will allow future nurses to learn to control their behaviours and cope with stressful situations related to geriatric care within the workplace and enhance their behaviours and attitudes toward caring for the geriatric population.

Providing nursing students with the required skills and knowledge related to the geriatric population's care will promote their self-efficacy and, accordingly, positively influence their attitudes and behaviours toward the geriatric population. Because of this, self-efficacy theory was used as a framework for the assessment of nurses and nursing students' attitudes in this study. Four main sources of self-efficacy beliefs—mastery experiences or performance accomplishment, role modeling or vicarious learning, verbal encouragement, and emotional states—were used to identify gaps in the nursing curriculum (Figure 1).

Figure 1

Bandura's self-efficacy theory, including four beliefs



Source: Razzag et al. (2018), licensed under CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

Significance of the Study

This study's findings contribute to the current body of literature related to the self-efficacy and mindsets of Canadian nurses and nursing students toward elderly nursing care. The research enriches the existing literature on Canadian nursing curriculum's impact on the nurses' and nursing students' self-efficacy and mindsets. Based on the results, nursing students' self-efficacy may be enhanced for high-quality geriatric nursing care by recognizing knowledge, practical skills, and communication skills gaps in the nursing curriculum. This study also contributes to nursing programs by providing information and data to curriculum developers, nursing

instructors, and nursing administrators that can guide them through designing appropriate nursing curricula.

Methodology

Research Design

A mixed-method research design was used in this study. According to Creswell (2013), mixed-method approaches are used in the social, behavioural, and health sciences. In a mixed-method study, researchers gather, examine, and integrate quantitative and qualitative data into a single analysis to address their research questions. In this study, quantitative and qualitative data were collected from 90 nurses and nursing students through an online questionnaire. The data sources for this study were three surveys that measured nurses' self-efficacy towards caring for geriatric populations. The research tools effectively gathered both quantitative and qualitative data by using Likert scale and open-ended questions.

Data Source

Data were collected using an online questionnaire, divided into a Part A and a Part B, which can be seen in Appendices A–D and Appendix E of this article, respectively. Part A collected quantitative data and included four sections:

1. **A demographic questionnaire** (Appendix A) which collected 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. **The Older Patient in Acute Care Survey – United States (OPACS-US)** (Appendix B), which comprises two sections: one measuring nurses' practical experience, and another measuring nurses' general opinions of caring for geriatric patients.
3. **The Knowledge-about-Older-Patients Quiz (KOP-Q)** (Appendix C), which measures nurses' knowledge regarding caring for the geriatric population.
4. **The General Self-Efficacy Scale** (Appendix D), which includes items correlated to emotion, optimism, and work satisfaction. Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety.

Part B of the questionnaire collected qualitative data and included three open-ended questions designed by the researchers to explore participants' views of the nursing curriculum's contribution to nurses' knowledge, attitudes, self-efficacy, and mindsets in the context of geriatric care (Appendix E). To address the foci of this paper, the following research question was analyzed: How has the nursing curriculum contributed to nurses' self-efficacy and mindsets in caring for geriatric patients?

Recruitment and Participants

Participants were recruited from different nursing programs (colleges and universities), nursing homes, the Canadian Nursing Students' Association, and hospitals all over Canada. Participants were eligible for inclusion in the study if they were one of the following: (1) an undergraduate nursing student from a university or college, (2) a new nursing graduate with less

than one year of work experience, (3) a new nursing graduate with one to five years of work experience, or (4) a nurse with extensive (more than five years) work experience. Given the context of the COVID-19 pandemic, participants were recruited online via their organizations and affiliations.

In total, 90 participants were recruited for the study, including nurses and nursing students with different backgrounds and work experiences. Forty-three nursing students and 47 nurses (82 females, 8 males) ranging from 20 to 40+ years of age, participated in the study. Most participants (63.3%) had received training for geriatric care.

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 addresses to recruit study participants. The nature and importance of the study were explained and a letter of information including an introduction to the research and its potential contribution were attached. All information about the study was forwarded by administrators, and potential participants were instructed to contact the researcher regarding questions about the study. Participants were invited to complete the survey through Qualtrics, a secure online survey platform. Participants' privacy and confidentiality were protected as survey responses were collected anonymously. Upon completion of data collection, data were computed and analyzed.

Data Analysis

Likert scale survey responses were imported and tabulated in Microsoft Excel and analyzed via the Statistical Package for the Social Sciences (SPSS) software program using descriptive and inferential statistical analysis. 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 (mean \pm SD), and chi-squared test were used to analyze the 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 ($p=0.05$). Qualitative data obtained from open-ended question were analyzed using descriptive themes and coded using NVivo 12 data analysis software to address the research questions (Miles et al., 2014). Participants' responses to the open-ended questions in Part B of the online questionnaire were thematically analyzed using the themes identified by the NVivo analysis. The themes were examined for frequency of occurrence to illustrate similar comments, opinions, concerns, and suggestions among participants.

Results

Part A: Quantitative Survey Findings

In total, 90 participants completed the surveys. Table 1 'lists the participants' age, gender, marital status, work status, years of experience, and whether they received geriatric care training. Study participants ranged in age from 20 to 40+ years, with more than half of the study group (59.9%) between 20 and 25 years. Females comprised 91.9% of the participants. Most participants were single (60%). More than half (52.2%) of the participants were working, while 47.8% were studying. Two-third of all participants (63.3%) had 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 ± 9.6 .

Table 1

Demographic frequencies and percentages in 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 (mean \pm SD = 8.4 ± 9.6)		
No work experiences	39	43.3
1–10	38	42.2
11–20	6	6.7
≥ 20	7	7.8
Current work status		
Student	43	47.8
Work	47	52.2
Marital status		
Single	54	60.0
Married	36	40.0
Received training for geriatric care		
Yes	57	63.3
No	33	36.7

Table 2, reflecting findings from General Self-Efficacy Scale, highlights that 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 + SD of $24.68 + 12.82$.

Table 2

General self-efficacy frequencies and percentages in the study group (n=90)

Variables	Study group	
	Frequency	Percentage
General self-efficacy (mean ± SD = 24.67 ± 12.81)	18	20.0
No response	3	3.3
Hardly true	58	64.4
Moderately true	11	12.2
Exactly true		

As shown in Table 3, there was a statistically significant positive correlation between self-efficacy and the number of years of experience with $r = 0.207$ at $p = 0.05$, and a statistically significant positive correlation between the nurses' attitudes and their self-efficacy with $r = 0.217$ at $p = 0.04$. Similarly, there was a statistically significant positive correlation between self-efficacy and nurses' knowledge level with $r = 0.796$ at $p = 0.000$. As Table 4 shows, in exploring relationships between age group, gender, work status, and self-efficacy variables, there was no statistically significant difference between gender and total self-efficacy with $r = 0.40$ at $p = 0.93$, and no statistically significant difference between current work status and total general self-efficacy with $r = 3.59$ at $p = 0.30$. Equally, there was no statistically significant relationship between participants' age and self-efficacy with $r = 8.76$ at $p = 0.45$.

Table 3

Correlation between general self-efficacy, nurses' attitudes, knowledge level, and number of years of experience (n=90)

Study group variables	Self-efficacy
	r-test
Nurses' attitudes	0.217* 0.04
Nurses' knowledge	0.796** 0.000
Number of years of experience	0.207 0.05

** $p < 0.001$

* $p < 0.05$

Table 4

Relationship among participants' age group, gender, work status, and general self-efficacy (n=90)

Variables	General self-efficacy categories	
	Chi square	P-value
Age group	8.76	0.45
Gender	0.40	0.93
Work status	3.59	0.30

Part B: Open-Ended Questions Findings

Findings from about whether the nursing curriculum contributed to the self-efficacy and mindsets of nurses in caring for geriatric patients highlighted that more than half of the participants (57%) reported that the nursing curriculum had a greater influence on their self-efficacy (Figure 2). Nurses commented: “Yes, as the knowledge which I obtained from the nursing curriculum helped me to increase my self-efficacy”; “With increased knowledge and

practicum opportunities, I was able to increase my confidence and ability to care for geriatric patients”; “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”; and “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.”

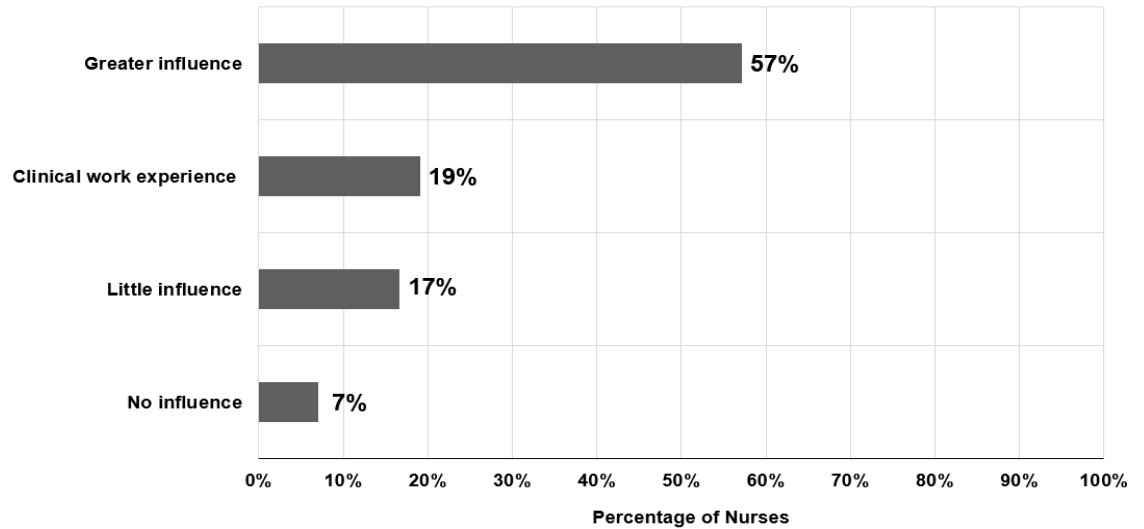
Nineteen percent of the participants reported in responses to this same question that work experience, more than curriculum, impacted their self-efficacy’: “Just basic knowledge provided. Mostly self-efficacy came with years of experience”; “Minimally, again I think this comes with experience in the field”; and “I became more confident in providing nursing care for geriatric through the practice in hospital.”

Some nurses (17%) agreed that the nursing curriculum had little effect on their self-efficacy: “Very little impact”; “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”; and “Some information has been helpful in caring for the elderly, for example, highlighting misconceptions about aging.”

Finally, a small group of nurses (7%) indicated that the nursing curriculum did not affect their self-efficacy (Figure 2). Nurses commented: “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”; “It was not at all helpful”; and “Nope, experience, and personal development, emotional and social intelligence.”

Figure 2

Nurses' accounts of whether the nursing curriculum contributed to their self-efficacy



Responses also showed that participants had different experienced of how the nursing curriculum contributed to nurses' self-efficacy and mindset toward geriatric care (Figure 3). study findings reveal that for 40% of participants self-efficacy increased through an understanding of geriatric needs and problems. Participants commented: "Understanding common issues/problems in geriatric patients' increases confidence"; "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"; and "Yes. We spent many hours discussing the emotional support and resources that is required to provide care for the elderly."

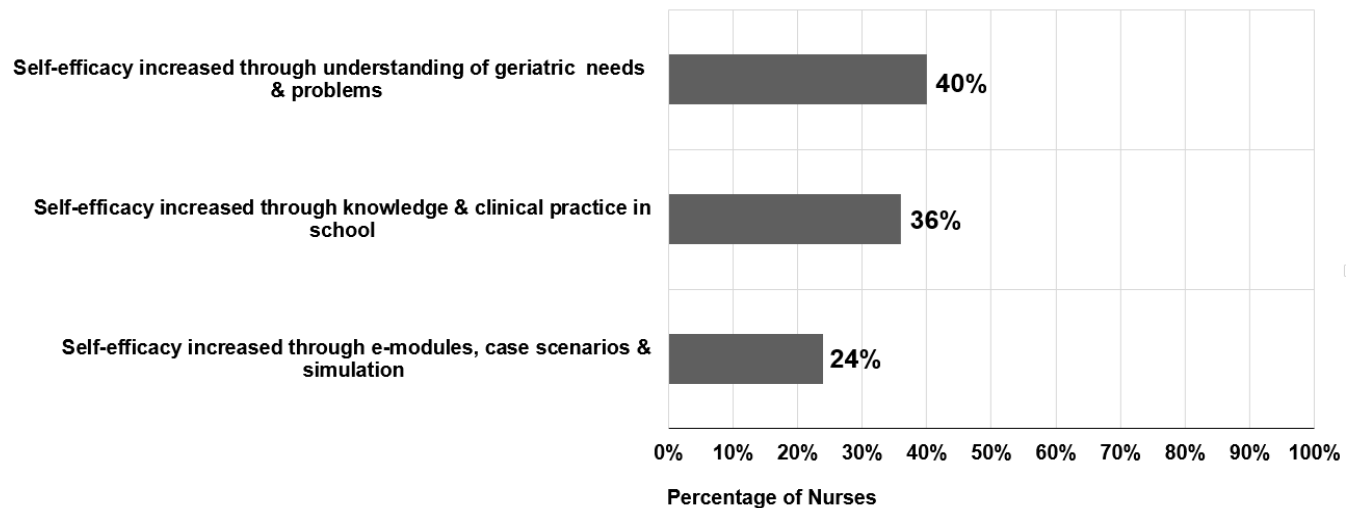
Another group of nurses (36%) mentioned that self-efficacy increased through knowledge and clinical practice in school, as highlighted in their comments: "The knowledge which I obtained from the nursing curriculum helped me to increase my self-efficacy"; "Self-efficacy

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”; “The nursing curriculum has contributed to my self-efficacy in the care of geriatric patients as this improves through clinical practice”; and “I became more confident in providing nursing care for geriatric through the clinical practice in school.”

The remaining participants (24%) stated that self-efficacy increased through engaging with e-modules, case scenarios, and simulations. Nurses stated: “Case scenarios and simulations with older patients is helpful”; and “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.”

Figure 3

Nurses’ accounts of how the nursing curriculum contributes to their self-efficacy



In summary, findings from an exploration of the contribution of the nursing curriculum to the self-efficacy and mindsets of nurses in caring for geriatric patients highlighted that most nurses reported that the nursing curriculum had a significant influence on their self-efficacy,

giving them knowledge and skills that empowered them to provide comprehensive nursing care and to interact positively with the geriatric population. However, some nurses reported that the nursing curriculum was either a little helpful or not helpful with regard to their self-efficacy, that their work experience was a more important factor in providing them with the knowledge and skills they needed to positively engage with geriatric patients.

Discussion

Nurses' Self-Efficacy and Mindsets toward Caring for Geriatric Patients

Based on findings of this study and Table 2, 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 (2019) study, which revealed that nurses' knowledge and self-efficacy related to elderly care were found to be at low levels in Chinese nursing homes. Zhang and Sun also found that older nurses interested in working with the aged had a high level of self-efficacy. Correspondingly, Soudagar et al. (2015) reported 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.

Findings from the present study revealed that there was a statistically significant positive correlation between nurses' attitudes, knowledge level, and total self-efficacy score. There was also a statistically significant positive correlation between nurses' self-efficacy and their years of experience. These results are congruent with Prasomsuk et al. (2020), whose research showed statistically significant correlations between Thai nurses' attitudes and knowledge levels and

between their attitudes 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 of geriatric care than other health care providers and exhibited ageism. They were anxious about caring for seniors, and they agreed that working with geriatrics was correlated with low self-esteem and negative behaviours.

Furthermore, as demonstrated in Table 3, there the present study found no statistical relationship between age group, gender, work status, and self-efficacy. These findings are congruent with Abozeid (2015), who showed no statistically significant relationship between age, attitudes, and self-efficacy. 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 significantly impact nurses' attitudes about geriatric care.

The Influences of the Nursing Curriculum on Nurses' Self-Efficacy and Mindsets

The nursing curriculum impacts nurses' self-efficacy, as highlighted in Figures 2 and 3. Nurses exhibited agreement on many statements pertinent to the nursing curriculum significantly influencing their self-efficacy in terms of understanding geriatric 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.” These findings are similar to those 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 more 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 [personal support worker] 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, and that high self-efficacy improves nurses’ self-control and competence and helps them accomplish tasks more effectively.

According to Bandura (1977), students with a lower level of self-efficacy prefer escaping from situations that have resulted in dissatisfaction in the past. Consequently, some nursing students and nurses may have low professional self-esteem, suffer massive turnover, and be 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, and more likely to have growth mindsets (Gemino et al., 2018). However, nurses with low levels of self-efficacy are less likely to take the required measures to support their patients, and possibly have fixed mindsets (Gemino et al., 2018). Thus, nursing students and clinical nurses need a high level of self-efficacy (Alavi, 2014) and must be given learning and practical opportunities to change fixed mindsets.’

According to the present study’s findings, it is obvious that the nursing curriculum is a significant element in the development of nurses’ self-efficacy and mindsets. The variation of nursing students and nurses’ responses toward the nursing curriculum’s impact on their self-efficacy and mindsets may be due to differing learning experiences.

Nursing Implications and Recommendations

Based on the study findings, it is recommended that the fundamental beliefs of Bandura’s self-efficacy theory’ (such as role modeling, verbal encouragement, and mastery experiences) be incorporated into the nursing curriculum and into teaching and learning strategies to improve nursing students’ performance. For instance, using interactive and clinical integrated teaching strategies such as small group work, journal clubs, interactive lectures, clinical nurse presentations, workshops, case study and problem-based learning (Khan & Coomarasamy, 2006, as cited in Horntvedt et al., 2018), and simulations (Brown et al., 2021). Similarly, it is suggested that geriatric nursing courses be combined with a clinical practicum course to increase nursing

students' practical experience in seniors' care. Finally, 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 illnesses associated with aging and on ageism.

Limitations

One limitation of this study is the difficulty experienced in recruiting participants. Due to the COVID-19 pandemic, hospitals were overwhelmed, and some nursing administrators were challenged in distributing the study among nurses. Similarly, different nursing programs apologized in advance for not sending study materials to their students, pointing to the challenges of online learning as a justification for their decision. Another limitation is the lack of access to the nursing curricula across nursing programs. As a result, there could be self-reporting biases in participants' accounts of the role of curriculum in nursing education.

Conclusion

This study has provided the opportunity to reflect on the self-efficacy and mindset of nurses and nursing students in the context of elderly care. The study findings revealed that most Canadian nurses and nursing students possess moderate self-efficacy when it comes to caring for the geriatric population. Some participants reported that working experience impacted their self-efficacy more than nursing curriculum. The study findings revealed specific strengths and weaknesses which could be used as a guide for future iterations. Future research should investigate nurses' self-efficacy to expand the body of literature on this subject. Ultimately,

geriatric nursing courses should be mandatory separate courses in nursing education to enhance nursing students' knowledge, skills, and self-efficacy.

Ethics Considerations

The study was approved by the Research Ethics Board. The purpose of the study and the research questions were all defined, and study surveys were anonymized. Consent was requested from the Research Ethics Board in accordance with the requirements of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2). The letter of information was provided in Qualtrics. By proceeding with the survey, participants were providing implied consent; submitting the survey was an indication of their consent.

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Appendix A: Nursing Demographic Questionnaire

1. Age:

- a. 20–25
- b. 26–30
- c. 31–40
- d. 40+

2. Gender:

- a. Male
- b. Female
- c. Transgender
- d. Gender neutral
- e. Non-binary
- f. A gender
- g. Pangender
- h. Genderqueer
- i. Two-spirit
- j. Third gender

3. Current work status:

- a. Student
- b. Work

4. If work, number of year(s) of experience: _____

5. Marital Status:

- a. Single
- b. Married
- c. Divorced
- e. Widowed

Appendix 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.					
13. I find it necessary to watch confused older patients closely.					

14. I am more likely to use some form of restraint on an older patient than on a younger patient.					
15. I offer/order personal hygiene assistance for older patients more often than for younger patients.					
16. I ask older patients if they require assistance with their activities of daily living more often than I ask younger patients.					
17. I have difficulty finding an older patient's pulse.					
18. I ask older patients if they have incontinence problems.					
19. I involve an older patient's family/caregiver in their care.					
20. I explain medications more than once to older patients to ensure understanding.					
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.					
22. I ask older patients if they have pain more often than I ask younger patients.					
23. I ask older patients if they require pain relieving medication more often than I ask younger patients.					
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.					
25. I begin discharge planning earlier in an older patient's stay than in a younger patient's stay.					
26. I allow more time to prepare an older patient for discharge than a younger patient.					
27. I find it easier to cope with the death of an older patient than a younger patient.					
(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.					

<ol style="list-style-type: none"> 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. 18. Older patients have extensive lengths of stay and take up beds that could be used for sicker patients. 19. There are too many older patients in acute care hospitals. 20. It would be a good idea for all hospitals to have an acute geriatric unit. 					
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<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 become confused after operations/procedures.</p> <p>31. Older patients are more likely to develop post-operative complications.</p> <p>32. Older patients are particularly prone to nosocomial infections.</p> <p>33. Early discharge is difficult to achieve with older patients.</p>					
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Appendix 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 six 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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Appendix 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.				

Appendix 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?
