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# Senior Nursing Students' Knowledge, Attitudes, and Perceived Competency about Older Adults

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and Perceived Competency about Older Adults


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Requirements for the Degree of
Doctor of Philosophy in Nursing Education


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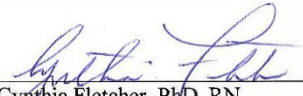

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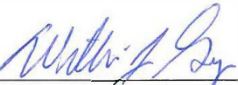
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Abstract

**Background:** Nurses entering the workforce may have limited education in gerontological nursing. Therefore, many nurses are unprepared to provide quality care to older adults. An unprepared nursing workforce could negatively influence older adults' health outcomes and care experience.

**Purpose:** To determine differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a bachelor of science in nursing degree (BSN), associate's degree nursing (ADN), and practical nursing (PN) program that offers geriatric content in curricula.

**Theoretical Framework:** Bandura's social cognitive theory, *triadic reciprocal determinism* model provided the theoretical framework.

**Methods:** A non-experimental, descriptive survey design with a convenience sample of students enrolled in a BSN, ADN and PN program. A total of 178 students participated in this dissertation study. Palmore Facts on Aging Quiz 2, Kogan's Attitudes Toward Old People Scale, and the Hartford Geriatric Nurse Competency tool was used to collect data.

**Results:** Students enrolled in BSN, ADN, and PN programs demonstrated limited knowledge about facts on aging. Students' attitudes toward older adults were positive, and a correlation was found between knowledge and attitudes. Students perceived competency about older adults were high, but purely subjective. Students' preference to work with older adults post graduation in the PN group were higher compared with students in both the BSN and ADN group.

**Conclusions:** This study underscore the need to systematically design an evidence-based curriculum inclusive of geriatric content across (BSN, ADN, and PN) programs to prepare the future nursing workforce to care for older adults.

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Table of Contents

List of Tables

List of Figures

Chapter One

**Problem and Domain of Inquiry**

There is a growing body of knowledge about quality health care for older adults. Adults age 65 years and older are the fastest-growing population worldwide (World Health Organization [WHO], 2011) and are projected to increase from 38 million in 2010 to more than 80 million by the year 2050 (Vincent & Velkoff, 2010). The rapidly growing population of older adults presents one of the greatest challenges to the health care system. Older adults experience more diseases that are chronic, have a higher intake of prescription medications, and greater adverse health complications than individuals less than 65 years old (Centers for Disease Control and Prevention [CDC], 2013).

Approximately 80% of older adults have at least one chronic disease, and more than 50% of older adults have two chronic disease conditions (CDC, 2013). These conditions increase the demand for health care services in hospitals, nursing homes, primary care, home care and other types of outpatient emergency and surgical facilities (Institute of Medicine [IOM], 2008). According to Dahlke and Fehr (2010), 50% of all patients admitted to hospitals are older adults with rates even higher in home care (70%) and in nursing homes (90%), also known as long-term care facilities. As frequent consumers of health care services, older adults require more nursing care than populations under 65 years of age (Bednash, Mezey, & Tagliareni, 2011). A preponderance of evidence shows an increase in the life expectancy of older adults, despite vulnerabilities and challenges with chronic diseases.

Quality health care is a national priority for all Americans (Agency for Healthcare Research and Quality [AHRQ], 2015). Advances in education, research, technology, and policy over several decades have contributed to quality health care for older adults in the United States (US; Begley, Lairson, Morgan, Rowan, & Balkrishnan, 2013). In 1965, Medicare and Medicaid programs were established to ensure older adults and disabled individuals had access to quality health care (Centers for Medicare and Medicaid Services [CMS], 2014). The IOM defines quality health care as "safe, effective, patient centered, timely, efficient, and equitable care" (Plesk, 2001, p. 2). In 2012, the U.S. Department of Health and Human Services (USHHS) introduced the Patient Protection and Affordable Care Act (ACA) and identified the positive impact on quality care for older adults. The ACA improved access to patient-centered and community-based health care and closed the gap in health care for the uninsured (USHHS, 2012).

Horton and Johnson (2010) agreed that insurance coverage encourages timely health care service and promotes quality health care. Quality health care reduces disparities and increases quality of life (AHRQ, 2015). Barriers to quality healthcare includes education, economics, race, and a lack of competence among nurses and physicians (Horton & Johnson, 2010). A significant amount of evidence shows quality health care is achieved when health care professionals demonstrate competency in geriatrics (AHRQ, 2015, IOM, 2008). In contrast, incompetence in health care professionals could result in unsafe medical practices and potentially negative patient outcomes (Aiken, Clarke, Cheung, Sloane, & Silber, 2003; Kutney-Lee, Sloane, & Aiken, 2013). Competency in health care professionals is vital to positive patient outcomes (Houde & Melillo, 2009).

Furthermore, competency in nursing practice is a precursor to quality nursing care (American Nurses Association [ANA], 2010). The ANA is responsible for defining the scope of nursing practice and standards (ANA, 2010). According to the ANA (2001) Code of Ethics Interpretive Statement, "individual nurses are accountable for assessing their competence, maintenance of competence, and ongoing professional growth in a way that is self-regarding" (p. 17). Competence in nursing practice reduces medical errors, improves nursing care, and patient outcomes (Chenot & Daniel, 2010).

In the nursing literature, the terms competence, competency, and competencies are often used interchangeably. *Competence* is defined as performing successfully at an expected level (ANA, 2010). According to Schroeter (2008), competence is required before competency can be achieved. *Competency* is an expected level of performance that integrates knowledge, skills, abilities, and judgment (ANA, 2010) and includes knowledge, technical skills, effective communication, the ability to problem solve, and clinical judgement (Schroeter, 2008). *Competencies* are used to create specific standards within a discipline (ANA, 2010). Cronenwett et al. (2007) recognized preparing nurses with specific competencies based on assigned practice setting improves patient safety.

In 1966, the ANA established the Division of Geriatric Nursing Practice to create standards for quality and safe nursing care for older adults in all health care practice settings. In 1976, the name changed to the Division of Gerontological Nursing Practice to reflect health promotion with an emphasis on holistic health care and chronic disease management. In 2010, the ANA defined the scope and standards of practice for gerontological nursing as an evidence-based nursing specialty to address the physiological, psychosocial, developmental, economic, cultural, and spiritual needs of

older adults. The standards of clinical gerontological nursing describe competencies for each step of the nursing process and are the essential foundation of actions gerontological nurses are required to take in providing older adult care (ANA, 2010).

In the literature, the terms geriatrics and gerontology are commonly used interchangeably regarding older adults. Geriatrics is defined as the study of health and disease in later life (Tabloski, 2014). Gerontology is the study of the aging process, including the physical, mental, and social changes of aging (Tabloski, 2014). Health care providers who specialize in older adults are referred to as gerontologists or geriatricians (Tabloski, 2014). Nurses who provide health care to this population are often described as gerontologists, geriatric nurses, or gerontological nurse (Tabloski, 2014). The terms geriatric nurse and gerontological nurse will be used in this dissertation study.

The ANA (2010) maintains the public has a right to expect nurses to demonstrate competency throughout their careers, and the nursing profession should hold nurses accountable for maintaining individual competence. Benner (2001) reported nurses develop knowledge, skills, abilities, and judgement that move them from novices to experts over time and through lived experiences. The ANA (2010) maintains that nurses achieve knowledge, skills, ability, and judgement in practice and further defines these terms. In nursing, *knowledge* involves thinking; understanding science, humanities, and professional standards of practice; insights from experiences; personal abilities; and leadership. *Skills* consist of psychomotor, communication, interpersonal and diagnostic assessment aptitudes. *Ability* is the capacity to act effectively and requires listening, integrity, self-awareness, self-efficacy, emotional intelligence, and openness to

constructive feedback. *Judgement* includes critical thinking, ethical reasoning, and decision-making.

Resonating with the ANA position, Tagliareni, Cline, Mengel, McLaughlin, and King (2012) recommend nurse educators prepare future nurses with essential knowledge and skills to provide quality care to older adult patients. Tagliareni et al. (2012) also developed the Advancing Care Excellence for Seniors (ACES) framework, including a series of evidenced-based teaching modules to advance gerontological nursing education (see Appendix L). The ACES framework is divided into two categories of learning: the essential knowledge domain and the essential action domain. The essential knowledge domain includes the following three areas: individualized aging, the complexity of care, and vulnerabilities during life transitions. The essential action domain consists of experiential learning activities. These activities may be implemented in clinical practice and simulation labs to ensure nurses and students develop knowledge, compassion, and competency about the care of older adults, including an understanding about older adults' lived experiences, challenges, and rewards (Tagliareni et al., 2012).

As is widely documented in the literature, for over three decades, nurse educators have consistently designed nursing curricula in geriatrics to prepare the nursing workforce to provide quality care to older adults (Bednash et al., 2011; Gilje, Lacey, & Moore, 2007; Lange, Wallace, Grossman, Lippman, & Novotny, 2006; McCleary, McGilton, Boscart, & Oudshoorn, 2009; Mezey, Boltz, Esterson, & Mitty, 2005; Philipose, Tate, & Jacobs, 1991; Yurchuck & Brower, 1994). Many researchers explain that limiting geriatric content in nursing programs curricula compromises the preparation of nurses, which could negatively affect older adults' health outcomes (Baumbusch,

Dahlke, & Phinney, 2012; Gray-Miceli et al., 2014; Mauro, Hickey, McCabe, &

Emerson, 2012; McCleary et al., 2009; Miller, Coke, Moss, & McCann, 2009; Philipose

et al., 1991).

Despite continuous efforts in nursing education to prepare the nursing workforce

to care for older adults, in 2008, the IOM *Retooling for Aging America* report

recommended health care leaders increase geriatric content in curricula and continuing

education courses to prepare the entire health care workforce. In addition, the IOM

(2008) directed nurse educators to increase geriatric content in nursing curricula and

across all program types, including on licensure examinations. The report gained national

attention and significantly influenced health care education (IOM, 2008). Nevertheless,

the IOM (2010) *Future of Nursing Report* presented information that nurses were

unprepared to provide care to older adults and indicated these discoveries were associated

with insufficient geriatric content in nursing programs. Nurse educators were reminded to

redesign curricula to prepare nursing students at higher cognitive levels in geriatrics and

community-based nursing (IOM, 2010).

Benner, Sutphen, Leonard, and Day (2009) found that educating nursing students

at higher cognitive levels improves critical thinking, ethical reasoning, and decision-

making skills. Oermann and Gaberson (2013) determined that assessment and evaluation

methods are equally important for evaluating learning, judging performance, and

determining nursing students' competence to practice. In the literature, there is growing

population of older adults with chronic and complex conditions requiring nurses educated

in gerontological nursing (Bing-Jonsson, Hofoss, Kirkevold, Bjork, & Foss, 2015; Horton

& Johnson, 2010; Houde & Melillo, 2009). Key stakeholders, including the John A.

Hartford Foundation, the American Association of Colleges of Nursing (AACN), the National League for Nursing (NLN), and the Robert Woods Johnson Foundation, invested substantial capital, and resources to increase education in gerontological nursing.

In the literature, there are nursing programs at the Bachelor of Science in Nursing (BSN) degree level that have received a plethora of resources and engaged in several initiatives to advance geriatrics in nursing education (Aud, Bostick, Marek, & McDaniel, 2006; Azzaline, 2012; Baumbusch et al., 2012; Bednash et al., 2011; Blais, Mikolaj, Jedlicka, Strayer, & Stanek, 2006; Burbank, Dowling-Castronovo, Crowther, & Capezuti, 2006; Campbell & Jeffers, 2008; Chen, Brown, Groves, & Spezia, 2007; Fulmer et al., 2005; Gebhardt, Sims, & Bates, 2009; Gilje et al., 2007; Heise, Johnsen, Himes, & Wing, 2012; Ironside, Tagliareni, McLaughlin, King, & Mengel, 2010; Lane & Hirst, 2012; Latimer & Thornlow, 2006; Melillo, Abdallah, Blanks, Campbell, & Herndon, 2012; Mueller, Goering, Talley, & Zaccagnini, 2011; Schrader, 2009; Skaalvik, Normann, & Henriksen, 2012; Souder et al., 2006; White, Cartwright, & Lottes, 2012).

A dearth of research was found in the literature pertaining to geriatric education in Associate of Science Degree in Nursing (ADN; Ironside et al., 2010; Zembrzuski, 2000) and practical nursing (PN) programs (Corazzini et al., 2013; Faulk, Parker, Lazenby, & Morris, 2007; National League for Nursing, 2014; Pence, 2011). Yet, more than 50% of new registered nurses (RNs) entering the nursing workforce are prepared at the ADN level (Ironside et al., 2010). Additionally, licensed practical nurses (LPNs) also known as licensed vocational nurses (LVNs) provide more direct nursing care to older adults in long-term-care facilities exceeding that provided by RNs at the associate's-degree and bachelor's-degree levels (Skillman, Andrilla, & Tieman, 2011). It is important to point

out the terms LPN and LVN are often used interchangeably in the literature to describe PN/VN students, graduates, and programs. PN programs prepare students to take the National Council Licensure Examination-Practical Nurse (NCLEX-PN), which designates licensure, and upon successful completion, graduates may use the term LPN or LVN (National Council of State Board of Nursing [NCSBN], 2012). In this dissertation study, the terms PN students and PN programs denote practical nursing students and practical nursing programs.

The NLN is a premier organization that represents PN programs through doctorate degree nursing programs. The NLN developed the previously mentioned ACES framework and evidence-based teaching and learning resources to close the gap in gerontological nursing education (Tagliareni et al., 2012). The AACN is the national voice for baccalaureate and graduate nursing education. In 2010, the AACN, in collaboration with the Hartford Institute for Geriatric Nursing at New York University (NYU) College of Nursing, developed the *Recommended Baccalaureate Competencies and Curricular Guidelines for the Nursing Care of Older Adults: A Supplement to the Essentials of Baccalaureate Education for Professional Nursing Practice.* This supplement is supportive of gerontological nursing in higher education (AACN, 2010).

According to the AACN (2010), the growing population of older adults requires a well-prepared nursing workforce to care for them. A content analysis of Florida's college catalogs demonstrated that stand-alone courses in geriatrics and gerontological nursing were limited in pre-licensure BSN, ADN, and PN programs. *Health Care Across the Life Span* is an example of a course title suggestive of the integration of gerontological nursing content in a nursing program curriculum. According to Lim and Honey (2006), in

an integrated curriculum, content is blended and interwoven throughout designated courses. The integration of course content is also a curriculum strategy to facilitate logical, pertinent, and engaging learning (Pearson & Hubball, 2012). Abendroth and Graven (2013) asserted that integrating geriatrics into the nursing curriculum could improve students' learning outcomes. In contrast, Grocki and Glenn (2004) posited that courses integrating geriatric content are often limited compared with stand-alone courses.

Wallace, Lange, and Grossman (2005) agreed that the integration of geriatric content in nursing curricula could lead to a loss of critical content. Furthermore, as the leading authority in BSN education, the AACN (2010) indicated the integration of geriatric content in nursing curricula could reduce specific knowledge and recommends both integrated courses and stand-alone courses. Yet, stand-alone courses in gerontological nursing are being eliminated and integrated with general adult course content (Baumbusch et al., 2012). Baumbusch et al. (2012) showed an opportunity exists to investigate why nursing programs in the US, particularly in the state of Florida, are proponents of integrating geriatric content in nursing curricula when stand-alone courses improve students' learning outcomes.

Tagliareni et al. (2012) agreed that education in gerontological nursing needs to be focused and intentional to improve students' learning outcomes in geriatrics. After all, areas of specialization in nursing, such as obstetrics and pediatrics, are usually included in stand-alone courses in a nursing curriculum (Keating, 2014). Barba, Tesh, and Kohlenberg (2007) recognized health care institutions that mainly serve pediatric populations require nurses to achieve age-specific knowledge, competence, and certification. In contrast, when older adults are the leading population in a health care

institution, acquisition of age-specific knowledge, competence, and certification standards is usually not required (Barba et al., 2007). Yet, the health care needs of older adults are relatively significant, and the literature continuously shows that nurses are not prepared to care for older adults (Bednash et al., 2011; Grocki & Glenn, 2004; Kovner, Mezey, & Harrington, 2002; Mezey et al., 2005). A growing population of older adults with chronic and complex conditions require nurses to obtain specific knowledge in gerontological nursing (Abendroth & Graven, 2013; Stierle et al., 2006).

In the state of Florida, the Florida Department of Education (FDOE) establishes and governs curriculum frameworks for ADN (see Appendix H) and PN (see Appendix I) education. The FDOE (2014) curriculum frameworks for ADN and PN education shows a scarcity of geriatric competencies compared with the AACN (2010) gerontological competency statements for BSN programs (see Appendix G). The wide difference between FDOE curriculum frameworks in geriatrics and the AACN gerontological competency statements could contribute to inconsistencies in the preparation of the nursing workforce to provide care to older adults. In addition, Florida's population of older adults is unprecedented and necessitates a knowledgeable and competent nursing workforce. According to Reynolds, Gunderson, and Bamford (2015), 32.5% of Florida's population will be 60 or older by the year 2030, an increase of 34% from 2012.

Currently, 19 million people reside in the state of Florida, and more than 6.9 million (36.9%) are over age 50 (Reynolds et al., 2015). Approximately 4.4 million (23.4%) are over 60, more than 2.3 million (12.2%) are over 70, and more than 916,000 (4.9%) are over 80 (Reynolds et al., 2015). The Florida Center for Nursing (FCN, 2016) projects that the growing population of older adults within the state will significantly

affect the health care delivery system. The Florida Center for Nursing is a state-appointed organization that collect reports and makes recommendations to key stakeholders about Florida's nursing workforce. Recently the FCN (2016) reported workforce trends and the number of nurses employed by industry (see Appendix J). Nurses were identified as either RNs or LPNs; no delineation between BSN and ADN educational levels was reported. While several educational pathways lead to the nursing workforce, the multiplicity of options could generate ambiguity in society about nursing care expectations. Can the older adult patient expect nurses who are educated at the BSN, ADN, and PN levels to understand their nursing care needs? A systematically designed, evidence-based curriculum inclusive of geriatric content across nursing program types could influence the preparation of the nursing workforce to care for older adults.

## Problem Statement

Nurses entering the workforce may have limited education in gerontological nursing. Therefore, many nurses are unprepared to provide quality care to the older adult patient population (IOM, 2010). This problem has appeared in the literature perpetually for several decades and remains worthy of investigation. A considerable amount of evidence shows key stakeholders recommended health care leaders to specifically target and include geriatric content in curricula and on all health care workers' and professionals' licensure examinations (IOM, 2008). The literature demonstrates BSN programs gathered and applied resources to advance education in geriatrics through curriculum enhancements (AACN, 2010). However, little literature included gerontological nursing education in ADN, and PN programs. A content analysis of AACN (2010) BSN competency statements for nursing care of older adults and the

FDOE (2014) curriculum frameworks in geriatrics for ADN and PN programs shows a disproportion in geriatric content. Yet, nurses who are educated at the BSN, ADN, and PN level comprise the nursing workforce. A continual gap of gerontological nursing content across nursing programs types could further impede the preparation of the nursing workforce, and an unprepared nursing workforce could negatively influence older adults' health outcomes and care experience.

## Purpose of the Study

The purpose of this dissertation study was to determine differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in curricula.

## Research Questions

1. What are the knowledge, attitudes and perceived competency about older adults of senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum?

2. Is there a significant relationship between knowledge, attitudes and perceived competency about older adults among senior nursing students?

3. Is there a significant relationship between senior nursing students' attitudes and employment preference to work with older adults post graduation?

## Research Hypotheses

1. There is a significant difference in knowledge about facts on aging among senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum.

2. There is a significant difference in the attitudes toward older adults among senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum.

3. There is a significant difference in the perceived competency about older adult care needs among senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curricula.

4. There is a significant relationship between knowledge and attitudes about older adults among senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric content in the curriculum.

5. There is a significant relationship between attitudes and perceived competency about older adults among senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric content in the curriculum.

6. There is a significant relationship between knowledge and perceived competency about older adults among senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric content in the curriculum.

7. There is a significant relationship between senior nursing students' attitudes and employment preference to work with older adults post graduation.

## Significance of the Study

### Nursing Education

Educating nurses at the BSN, ADN, and PN levels is important to building a strong and diverse nursing workforce. Moreover, preparing the nursing workforce to provide quality care to older adults is a national priority. Nursing education is essential to ensuring nurses and nursing students acquire the knowledge, skills, and attitudes needed

to provide age-specific care to older adults. Gerontological nursing education is flourishing in BSN nursing programs but limited in ADN and PN programs. However, nursing workforce statistics show a significant number of LPNs are employed where the greatest number of older adults receive care. A limited number of nurses educated at the BSN and ADN levels can be found in similar practice settings. The results of this dissertation study will inform nurse educators about the influence of geriatric nursing education on students' learning about older adults. The findings from this dissertation study could provide nurse educators with evidence-based knowledge to inform curriculum design in geriatric nursing, particularly in ADN and PN programs.

**Nursing Practice**

Older adults require more nursing care in varied health care practice settings than any other age-specific population (Bednash et al., 2011). A knowledgeable and competent nursing workforce asserting a positive attitude toward older adults is vital to quality patient care. A continuous shifting in the health care delivery system, including an increase in older and diverse patient populations, requires nurses to be educated and prepared for challenges that may compromise the quality of patient care in nursing practice. The findings from this dissertation study could provide insights to nursing practice, the FCN, workforce leaders, and key stakeholders about the extent to which nurses are prepared academically to care for older adults. In addition, the results from this dissertation study could be used to make recommendations regarding the education and preparation of nurses in various practice settings who should receive information about the care of older adults during new employment on boarding, and through professional development for continuing education units.

**Nursing Research**

Nursing research is important to improving nursing practice, professional credibility, and an avenue to changing health policy (Tingen, Burnett, Murchison, & Zhu, 2009). For over three decades, geriatric research has gained momentum and saturated the nursing literature. A substantial body of knowledge already exists about the care of older adults, specifically at the higher education (BSN) level. However, little empirical literature is informative for geriatric education at the ADN and PN educational levels. This dissertation study will begin to close the gap by generating evidence about the knowledge, attitudes, and perceived competency of senior nursing students across three nursing program types (BSN, ADN, and PN). Results from this dissertation study will provide a foundation for further studies to advance the teaching and learning process about older adults in all pre-licensure nursing programs.

**Nursing Policy**

Quality health care for older adults is a national priority for policymakers. The Centers for Medicaid and Medicare Services (2014) estimated that by 2020, 20.8% of older adults in the US would have lived in a long-term-care facility. In 1981, Congress adopted the Omnibus Budget Reconciliation Act to protect older adults from substandard care in long-term-care facilities, ensure home care benefits for older adults, and require certification and accreditation of health care facilities where older adults receive care. The Older Americans Act was enacted in 1973 to ensure the housing, nutrition, transportation, and social needs of older adults are met. Legislative policies that directly affect older adults include the Americans with Disability Act, Adult Protective Services, and the Patient Bill of Rights. This dissertation study is aligned with the aforementioned

agencies that seek to improve older adults' outcomes. Nurses can use the findings from this dissertation study to advocate for funding from legislators and key stakeholders to generate resources to support geriatric nursing education across program types. The evidence generated from this dissertation study could also inform professional organizations that advocate quality health care for older adults. Finally, this dissertation study has the potential to encourage key legislators to consider mandating continuing education in older adult care, particularly in the state of Florida.

**Philosophical Underpinning**

The philosophical underpinning is a post-positivist paradigm. Philosophers Popper (1959), Bronowski (1950, 1956), Kuhn (1970), and Hanson (1958) influenced the post-positivist worldview. The post-positivist perspective presented that both observable and unobservable phenomena may exist in reality, but absolute truth does not exist (Creswell, 2013). Through the post-positivist lens, the researcher enters into a study objectively to understand causal relationships, experimentations, correlational studies, and participants' perspectives (Creswell, 2013; Scotland, 2015). In contrast, through the lens of positivism, reality can be discovered independent of the researcher (Pring, 2000). The ontological position of positivism is realism, a view that objects have an existence independent of the knower (Cohen, 2007).

The epistemological position of positivism is objectivism. Through objectivity, the researcher is seeking absolute knowledge above an objective reality while taking an impartial position free of prejudice, preconceived notions, and bias. Positivist views are founded on data and facts. The knowledge discovered is considered absolute and value-free (Scotland, 2012). The post-positivist position is relevant for this descriptive study

because the lens is supportive of research designed to evaluate factors that influence outcomes and numeric measurements of personal factors; environmental factors; and behaviors of senior BSN, ADN, and PN students who attend nursing programs that offer geriatric content in nursing curricula. The hypothesis will be rejected or confirmed but not shown to be true (Creswell, 2013). The researcher will focus on the reliability of the findings and the extent to which the findings can predict students' knowledge, attitudes, and perceived competency about older adult patients.

## Theoretical Framework

The theoretical framework is social cognitive theory (SCT). The concepts of social cognitive theory will be applied to evaluate senior nursing students' knowledge, attitudes, and perceived competency about older adults. Miller and Dollard (1941) introduced the observational learning theory (OLT), which focuses on how humans learn through observing others. Bandura (1977) expanded OLT to social learning theory and underscored the role of environment and continuous reinforcement in social learning. In response to behaviorism, social learning theory evolved to social cognitive learning (Bandura, 1986). Cognitive learning is a process that an individual directs; it involves perceptions of information, lived experiences, and the ability to understand information (Bandura, 2001). The social cognitive theory indicates people learn through personal experiences and by observing the actions of others and the outcome of those actions (Bandura, 1986). Moreover, triadic reciprocal determinism factors are used to describe behavioral, personal, and environmental factors as interacting determinants that influence each other bi-directionally to affect learning (Bandura, 1986).

According to Wood and Bandura (1989), the three-way reciprocal interactions do not take place in a fixed pattern. Instead, individuals' expectations, beliefs, self-perceptions, goals, and intentions shape and direct their behaviors. Bandura (1977) introduced additional concepts to reinforce social cognitive theory. For example, self-efficacy refers to an individual's perception of his or her competency to achieve tasks and goals effectively. Winslow, DeGuzman, Kulbok, and Jackson (2014) reported that students with greater self-efficacy tend to have more competency and confidence in their abilities to be successful compared with students with lower self-efficacy. In this dissertation study, students' perceived competency about older adults is under investigation. Bandura's *triadic reciprocal determinism* model, displayed in Figure 1, depicts the bi-directional interactions of behavioral factors, personal factors, and environmental factors on individuals' learning outcomes (Wood & Bandura, 1989).
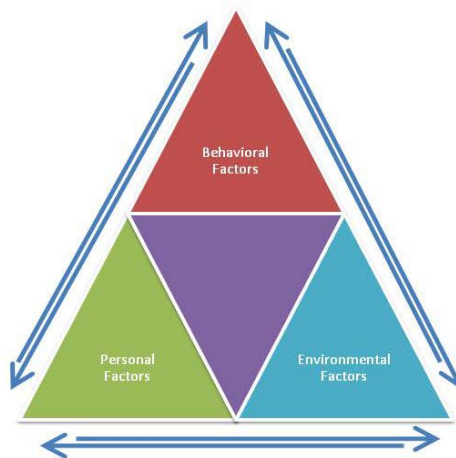


*Figure 1*. Bandura's social cognitive theory. The model depicts triadic reciprocal determinism. Adapted from "Social Cognitive Theory of Organizational Management," by R. Wood and A. Bandura, 1989, *Academy of Management Review*, *14*(3), p. 362. Copyright 1989 by Academy of Management.

**Theoretical Assumptions**

SCT explains how people acquire and maintain certain behavioral patterns and provides the foundation for intervention strategies (Bandura, 1977). Currently, the nursing workforce need nurses who are prepared to care for older adults. Winslow et al. (2014) reported a significant link exist between nurses' behaviors and patient outcomes. Bandura's SCT is foundational to this dissertation study and postulates the following:

- Personal factors within the academic environment, including reinforcements experienced by self and others, shape classroom learning (Bandura, 1986).

- Students' thoughts, self-beliefs, and interpretations of the classroom context affect learning (Bandura, 1986).

- Students can influence their behaviors in a purposeful, goal-directed manner (Bandura, 1986).

- Observation and modelling can contribute to students' knowledge and learning outcomes (Bandura, 1986).

- Learning can occur without an immediate change in the learner's behavior (Bandura, 1986).

- The triadic reciprocal determinism interactions are a continuous process that occurs among personal, environmental, and behavioral factors (Wood & Bandura, 1989).

**Application of Social Cognitive Theory to the Study**

Bandura's SCT theory was applied to this dissertation study to examine students' knowledge, attitudes, and perceived competency about older adults. In SCT, the learner is viewed as being fully engaged in the learning environment. In this dissertation study,

senior nursing students enrolled in a BSN, ADN, and PN program are learners. Nursing

students learn about caring for older adult patients within a social environment, such as

classrooms, simulation labs, and clinical environments. According to Wood and Bandura

(1986), *triadic* reciprocal determinism factors affect each other. Behavioral factors,

personal factors, and environmental *factors* influence students' knowledge, attitudes, and

perceived competency about older adults. Figure 2 depicts the application of SCT to this

dissertation study.

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┌─────────────────────────────────────┐
│   Students Enrolled in Pre-Licensure │
│     BSN, ADN, and PN Program         │
└─────────────────────────────────────┘
                 ↓
┌─────────────────────────────────────┐
│  Exposure to Geriatric Content       │
│  Integrated in Curriculum            │
└─────────────────────────────────────┘
                 ↓
```

**Behavioral Factors**

Attitudes
Perceived Competency

**Personal Factors**

Cognitive, Knowledge

**Enviromental Factors**

Classroom, Lab, Clinical Setting
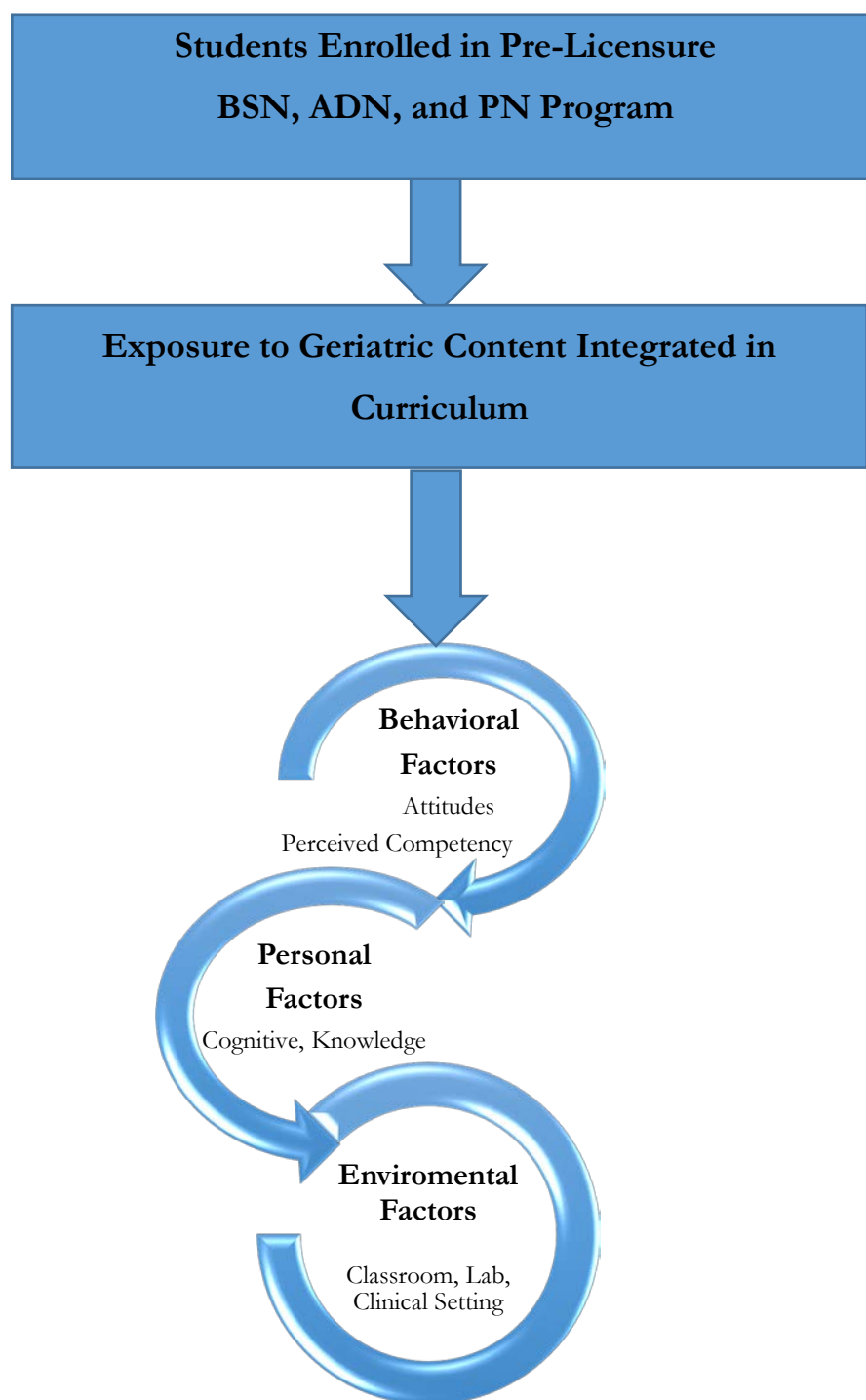
*Figure 2*. Schematization of the application of social cognitive theory to study. Adapted from *Social Foundation of Thought and Action: A Social Cognitive Theory* (p. 24), by A. Bandura, 1986, Saddle River, NJ: Prentice Hall. Copyright 1986 by Prentice Hall.

**Definitions**

**Theoretical Definitions**

**Behavior.** The behavior of an organism is the portion of the organism's interaction with its environment that is characterized by detectable displacements in space through time of some part of the organism and that results in a measurable change in at least one aspect of the environment (Johnston & Pennypacker, 1993, p. 23).

**Environment.** The environment includes physical surroundings and stimuli, such as other people or objects in the environment that influence behavior (Bandura, 2001).

**Geriatric care.** Geriatric care is provided to older adults' age 65 years and older (Mezey, Quinlan, Fairchild, & Vezina, 2006).

**Personal.** The individual learner includes cognitive factors, beliefs, personal disposition, affective, and biological factors of one's being (Bandura, 1986).

**Knowledge.** Knowledge is the result of the mind selecting, interpreting, and recreating sensory experience. The result is a product of the interaction of subjective and environmental factors, including cognition, stored experiences, beliefs, motives, and temperament. The acquisition of knowledge from a particular encounter may take different forms in different individuals and in the same individual at different ages (Schaffer, 2006, p. 37).

**Nursing students.** Nursing students are students who are enrolled in nursing school and pursuing either (a) a bachelor of science degree in nursing, (b) an associate's degree in nursing, or (c) practical nursing certificate (NCSBN, 2012).

**Nursing programs.** Nursing programs include the following:

1. An associate's degree nursing (ADN) program, also known as an associate of science in nursing (ASN) program (NCSBN, 2012). Upon completion, a community college approved by the Board of Nursing in the state in which the academic institution is located grants a degree. The duration of ADN education is generally two years, depending on the academic progression of the student. Upon completion, graduates are eligible to take the National Council Licensure Examination (NCLEX) for entry into the nursing workforce as RNs.

2. Bachelor of science in nursing program, also known as a baccalaureate nursing degree program (NCSBN, 2012). The duration of BSN education is generally four years, depending on the academic progression of the student. A college or university approved by the Board of Nursing in the state in which the academic institution is located grants a degree. Upon completion, graduates are eligible to take the NCLEX-RN for entry into the nursing workforce as RNs.

3. Practical nursing (PN) program, also known as a vocational technical nursing program (NCSBN, 2012). The term LPN or LVN is not used until licensure is granted. A community college, technical institute, or high school approved by the Board of Nursing in the state in which the academic institution is located grants a certificate of completion. The duration of a PN program is generally 12 to 14 months. Upon completion, graduates are eligible to take the NCLEX-PN for entry into the nursing workforce (NCSBN, 2012).

**Operational Definitions**

1. **Attitudes.** Students' scores on the Kogan's Attitudes toward Old People scale (Kogan's, 1961).

2. **Behavioral factors.** People acquire behaviors through the observation of others, then imitate what they have observed (Bandura, 1977).

3. **Environmental factors.** Classroom, lab, and clinical setting where students learn about gerontological nursing (Tagliareni et al., 2012).

4. **Knowledge.** Students' scores on the Palmore Fact's on Aging Quiz 2 multiple-choice version (Palmore, 1998).

5. **Nursing student.** A senior-level student enrolled in the final semester of a pre-licensure bachelor of science degree, associate degree, and practical nursing program that offers geriatric content in the curriculum (NCSBN, 2012).

6. **Perceived competency.** Students' scores on the Hartford Geriatric Nurse Competency tool for nurses (Mezey et al., 2006).

7. **Personal factors.** Cognition, personalities, beliefs, unique characteristics, and demographic data (Bandura, 1986).

## Chapter Summary

Older adults, a growing population, are frequent consumers of health care and nursing care both nationally and worldwide. There is evidence to suggest that nurses are not prepared to provide quality care to older adults. As a result, key stakeholders launched an array of educational initiatives in academia, staff development, and continuing education to improve nurses' ability to care for older adults. The

disproportionately low amount of literature and resources pertinent to gerontological nursing in ADN and PN education warrants attention and resources. This quantitative study will examine the knowledge, attitudes, and perceived competency of senior nursing students enrolled in a BSN, ADN, and PN program that offer geriatric content in the curriculum. The results from this dissertation study will offer new insights about the knowledge, attitudes, and perceived competency of these future nurses as they relate to the care of older adults. The philosophical underpinnings of post-positivism will provide the lens for this descriptive study to examine the variables (knowledge, attitudes, and perceived competency) among senior nursing students in three different nursing program types. Bandura's social cognitive theory triadic reciprocal determinism model will provide the theoretical framework to guide this dissertation study. The results of this dissertation study will show differences in students' knowledge, attitudes, and perceived competency about older adults. As a result, key stakeholders may consider allocating resources more generously and across all nursing program types to better prepare the nursing workforce as a whole to provide quality care to older adults. This dissertation study will have implications for nursing education, nursing practice, nursing research, and nursing policy.

Chapter Two

Review of Literature

The purpose of this dissertation study is to examine the influence of a BSN, ADN, and PN program that offer geriatric content in the curricula on senior nursing students' knowledge, attitudes, and perceived competency about older adults. This chapter presents the literature review of that which is known and not known (Creswell, 2013) about the influence of aging on health status; the health care and nursing care needs of older adults; and nurses and nursing students' knowledge, attitudes, and perceived competency about older adults, including, geriatrics in nursing curricula and nursing workforce trends in the state of Florida, particularly in settings in which older adults receive nursing care.

**Search Strategy**

A search of the literature was organized using the databases Academic OneFile, Allied Health, Cumulative Index of Nursing, ERIC, Medline Plus, ProQuest Nursing, ProQuest Dissertation and Theses, and PubMed for research published between 1941 and 2017 to attain a historical review of the literature. The search terms used independently, and in combination are as follows: older adults and nursing care, older adults and geriatric nursing education, older adults and nurses and nursing students' knowledge, nurses and nursing students' attitudes, and older adults and nurses and nursing students' competency and employment preferences. Articles were included in this literature review if the topic addressed the care of older adults; gerontological and geriatric content

in BSN, ADN, and PN nursing programs; or nurses' knowledge, attitudes, and competency in caring for older adults. Articles that addressed geriatrics and gerontological nursing education in RN-BSN post-licensure and graduate level or higher nursing programs were excluded from the literature review.

## The Impact of Aging on Health Status

The purpose of this section of the literature review is to discuss the impact of aging on the health status of older adults. It has been reported that the impact of aging on each individual's health is not the same (Carney-Thomas, 2014; Dahlke & Phinney, 2008; Hallgren, Ernsth Bravell, Dahl Aslan, & Josephson, 2015). There are varying degrees of changes, capacities, and limitations as aging is an individual process (Tabloski, 2014). Moreover, the health status of older adults is diverse and often complex (Boltz, Capezuti, Fulmer, & Zwicker, 2016). The process of aging occurs during the lifespan and extends until death (CDC, 2013). In addition, the maximal lifespan is the maximum number of years of life observed in a particular population and differs from species to species (CDC, 2013). In 2010, the maximum-recorded lifespan for humans was 122.5 years for women and 116 years for men (CDC, 2013).

Recently, the CDC (2013) reported that the average lifespan is 78.8 years. Tabloski (2014) identified three subgroups to delineate older adults further chronologically. The young-old reflects ages 65 to 74, middle-old is 75 to 84, and old-old is ages 85 and older (Tabloski, 2014). The old-old group is growing at twice the rate of individuals 65 years of age and four times that of the U.S. population (Tabloski, 2014). The old-old group is predicted to triple from 5.7 million to over 19 million by 2050 (U.S. Census Bureau, 2010). The National Center for Chronic Disease Prevention and Health

Promotion (2013) reported that medical treatments for older adults account for 66% of the national health care budget. Heart disease and cancer were reported to pose the greatest risks as people age. Chronic illnesses and conditions, such as strokes, respiratory diseases, Alzheimer's disease, diabetes, arthritis, osteoporosis, and degenerative illnesses, are widespread among older adults and affect their health status (CDC, 2013).

In a public policy document, the National Research Council (2013) reported that older adults' perceptions about aging were more positive than negative. Yet, negative attitudes about older adults are highly prevalent in society and among health care workers (Carney-Thomas, 2014). Ageism describes negative attitudes toward older adults (Horton & Johnson, 2010) and is defined as a systematic stereotyping of and discrimination against people because of their age (Butler, 1975). There have been several reports on ageism and the negative implications for health care (Bonnie & Wallace, 2003; Courtney, Tong, & Walsh, 2000; Eymard & Douglas, 2012; Jacobson, 2006; Marshall, 2010; Williams, Nowak, & Scobee, 2006; Williams, Anderson, & Day, 2007). Kagan and Melendez-Torres (2015) evaluated the literature on ageism and recommended nurses to increase their awareness about the threats ageism poses to patient outcomes.

Although researchers frequently emphasized the impact of aging on health status as it relates to chronic disease processes, income level, living arrangements, and the need for physical, psychological and social support often influence the health status of older adults as well (Fulmer et al., 2005). The term *healthy aging* is threaded throughout the gerontological nursing literature and depicts older adults living healthy lifestyles, making healthy decisions, exercising independence, and managing one or more chronic conditions (Westendorp, 2006). In the 21st century, healthy aging is considered a

significant milestone as individuals actively engage in activities to improve their quality of life (Westendorp, 2006). Various stakeholders, including the Administration on Aging, the American Geriatrics Association, Elder Care, Healthy People 2020, the National Council on Aging, and the National Institute on Aging, support healthy aging initiatives.

A major goal of gerontological nursing organizations is ensuring that nurses understand chronic disease management of older adults and promote healthy aging activities to lessen the impact of age-related diseases and disabilities among older adults (Tagliareni et al., 2012). Gillman, Parker, and Tabloski (2009) explained that older adults often interact within the environment to understand their lived experience of the aging process. Biological, sociological, and nursing theories have been used to explain the physical, cognitive, and emotional aspects of aging (Tabloski, 2014). The U.S. Department of Health and Human Services (2010) developed the Healthy People 2020 national health objectives and identified three factors associated with healthy aging. These factors include individual behaviors, the social environment, and health services. Individual behaviors involve one's ability to participate in physical activities, self-management of chronic diseases, and preventive health services to improve health outcomes. The social environment includes housing, transportation, and the ability to access care. Health services relate to the quality of health care, access to social services, caregivers' abilities to manage chronic conditions, and long-term care needs (USHHS, 2010).

According to the CDC (2013), the US will likely have more racially and ethnically diverse older adult populations with increasingly complex health care needs in the future. Older adults in various demographic groups may continue to experience

increases in health disparities as some diseases are more widespread in certain populations than in others (CDC, 2013). For example, the African-American population shows a marked disparity in diseases, injuries, disabilities, and death (CDC, 2013). According to Hebert, Frick, Kane, and McBean (2005), fewer African-American and Hispanic older adults receive the influenza vaccination than do older adult Caucasians. In addition, minority populations tend to have poorer health and are less likely to access healthcare than other racial populations (CDC, 2013).

Vincent and Velkoff (2010) projected that in 2042, the minority population in the US could become the majority. In 2010, 80% of adults aged 65 years and older were non-Hispanic White. By 2030, that percentage will have declined, and older non-Hispanic White adults will make up 71.2% of the population. Other groups include Hispanics 12%, non-Hispanic Blacks 10.3%, and Asians 5.4%. By 2050, the racial and ethnic diversity of older adults in the US will be overwhelmingly apparent. The proportion of older Hispanics is projected to triple from 7% in 2010 to approximately 20% in 2050, and the percentage of older Asian Americans is expected to double from 3.3% in 2010 to 8.5% in 2050. Older African-Americans will increase from 8.3% to 11.2% as reported.

There is a widening gap in the health status of Hispanic, Asian-American, African-American, American-Indian, Alaska-Native, and Native-Hawaiians/Other Pacific-Islander populations compared with non-Hispanic Whites (Vincent & Velkoff, 2010). Language barriers, reduced access to health care, low socioeconomic status, and various cultural traits may increasingly affect the quality of health care for older adults in a culturally diverse society (Horton & Johnson, 2010). Demographical shifts across the nation require the preparation of nurses to provide care to culturally diverse older adults

in various practice settings (Mezey et al., 2010). Furthermore, a nursing workforce that is culturally diverse and sensitive to the impact of aging on an individual's health status is vital to improving older adults' health outcomes (IOM, 2010).

## The Health Care Needs of Older Adults

The health care needs of older adults are based on the individual (Grady, 2011). Normal age-related changes may affect physiological, psychological, and spiritual aspects of the individual (CDC, 2013). Although many older adults in the US are active and healthy (CDC, 2013), the risk of developing chronic diseases increases with age (Houde & Melillo, 2009). Approximately 80% of people age 65 and older have at least one chronic disease, such as heart disease, diabetes, or arthritis (Ebersole, Hess, Touhy, & Jett, 2010). Individuals with a chronic disease may experience pain, functional limitations, and the need for long-term self-management of symptoms (Grady, 2011). Older adults with multiple chronic diseases may also experience debilitating rheumatoid arthritis, cancer, chronic obstructive pulmonary disease, congestive heart failure, Alzheimer's disease, and many other end-stage diseases (Tabloski, 2014). These individuals may require hospitalization, home care, assisted care, or long-term care (Stierle et al., 2006).

According to Nicholson, Meyer, Flatley, and Holman (2013), addressing the health care needs of older adults with multiple chronic diseases improves when nurses and the health care team are focused more on the individual and less on the disease. S. M. Smith, Soubhi, Fortin, Hudon, and O'Dowd (2012) found that health care agencies that use collaborative teams to manage individuals with multiple chronic diseases observed improved patient outcomes. Recently, Trehearne, Fishman, and Lin (2016) designed a

nurse-led pilot study and used a randomized clinical trial to test a TEAMcare collaborative model about the health care needs of patients with depression, uncontrolled diabetes, and heart disease. The experience of patients who received the TEAMcare collaborative model was compared with the experience of patients who received routine care in a primary care setting without the TEAMcare collaborative approach. Trehearne et al. (2016) showed a TEAMcare collaborative program effectively addressed the health care needs of individuals with multiple chronic diseases, increasing their use of health care services, and improved patient outcomes.

Because older adults are often confronted with more than one illness, disease, or complex issue, the use of interdisciplinary teams involved in the care of older adults is a growing trend to address specific issues arising from the complexities individuals experience (S. M. Smith et al., 2012). Several programs are currently in place to ensure older adults have access to health care systems to meet their health care needs. For example, the Program of All-Inclusive Care for the Elderly (PACE) provides Medicare and Medicaid recipients with comprehensive long-term care services from an interdisciplinary team of health professionals (https://www.medicaid.gov/medicaid/ltss/pace/index.html). The Acute Care for Elders (ACE) model is used with interdisciplinary teams in hospital settings (Fox, 2013). The Nurses Improving Care for Health System Elders (NICHE) program is in place at several hospitals across the country (Capezuti et al., 2012).

These programs, among others, were designed to ensure the health care needs of older adults are addressed without compromise (AACN, 2010). The health care needs of older adults are usually met in an array of settings, such as hospitals, nursing homes,

assisted care living, primary care, home care, adult day care, and correctional institutions among others (Kovner et al., 2002).

## The Nursing Care Needs of Older Adults

The purpose of this section of the literature review is to discuss and distinguish the nursing care needs of older adults from the health care needs discussed in the previous section. Nurses have provided care to meet the physical, psychological, and social needs of older adults for many years (Dahlke, 2011; Philipose et al., 1991; Stierle et al., 2006). To meet the nursing care needs of older adults, nurses should engage in health promotion, provide preventive and wellness programs, assist older adults in managing chronic conditions, and facilitate peaceful deaths (Stierle et al., 2006). According to (Tabloski, 2014), the goal of health promotion for older adults is to decrease the loss of autonomy and functional decline that could result in disabilities.

In the literature, the phrase "nursing care needs" of older adults are often used interchangeably with health care needs and care needs. The terms nursing care needs and care needs of older adults will be used in this dissertation study. Researchers repeatedly emphasize that the nursing care needs of older adults are significant and complex (Boltz et al., 2016; Cline, 2014; Horton & Johnson, 2010; Houde & Melillo, 2009; Welford, 2013). However, researchers rarely described the specific nursing care needs of older adults. Mezey et al. (2010) indicated the nursing care needs of older adults usually involve one or more geriatric syndromes, which are clinical conditions unassociated with disease processes (Brown-O'Hara, 2013). Mezey et al. (2010) described the eight domains of geriatric syndromes as follows: (a) communication, (b) physiological and psychological age changes, (c) pain, (d) skin integrity, (e) functional status, (f) restraints,

(g) elder abuse, and (h) discharge planning. Holroyd, Dahlke, Fehr, Jung, and Hunter, (2009) and Plonczynski et al. (2007) posited that nurses caring for older adults are often overwhelmed with role demands related to the aforementioned geriatric syndromes. Consequently, nurses may fail to address many of the complex nursing care needs of older adults (Dahlke & Phinney, 2008).

Nurses' inability to recognize and address the nursing care needs of older adults presents a problem for the individual, society, and the health care system (Harden & Watman, 2015). A plethora of theories and research show that nurses are not prepared academically to provide quality nursing care to older adults with geriatric syndromes, acute illnesses, and chronic disease processes (Adibelli & Kilic, 2013; Gillis & MacDonald, 2005; Horton & Johnson, 2010; Houde & Melillo, 2009). Managing older adults with dementia, delirium, depression, diabetes, cardiovascular disease, infection, chronic obstructive pulmonary disease among other diseases can be extremely challenging for nurses (Adibelli & Kilic, 2013).

Nurses need better preparation in gerontological nursing to meet the care needs of older adult patients (Boltz et al., 2016; S. Chen et al., 2007; Fulmer, 2001; Houde & Melillo, 2009; Mezey & Fulmer, 2002; Tagliareni et al., 2012; Wilson, 2010). The exponential growth of the older adult population requires nurses who are well- prepared in geriatrics to meet their care needs (Barba & Fay, 2009; Bednash et al., 2011). There are scholars worldwide (Deschodt, de Casterlé, & Milisen, 2010; Gilje et al., 2007; King, 2004) who have suggested nursing program curricula may not include essential content about the nursing care needs of older adults. The AACN (2010) competency statements (see Appendix B), the Hartford Institute for Geriatric Nursing online tools, the NLN

evidence-based ACES framework (see Appendix D), and online case studies are considered the best evidence-based resources to educate nurses about the care needs of older adults. While pre-licensure BSN, ADN, and PN education may not sufficiently prepare nurses with expertise in a specific area, studies have demonstrated that nurses with specific preparation in geriatrics provide significantly better care to older adults than nurses who are not prepared (Thornlow, Auerhahn, & Stanley, 2006).

## Nurses' Knowledge about Older Adults

Nurses' knowledge about caring for older adults may be limited (Gray-Miceli, de Cordova, Crane, Quigley, & Ratcliffe, 2016; Plonczynski et al., 2007; Roethler, Adelman, & Parsons, 2011). Yet, a knowledgeable nursing workforce is needed to promote healthy aging, meet the care needs of older adults, and manage chronic disease processes and geriatric syndromes (AACN, 2010; IOM, 2010; NLN, 2011). Tagliareni et al. (2012) reported that nurses need to know about individualized aging, the complexity of care, and vulnerabilities many older adults may experience during life transitions. To improve nurses' knowledge about older adults, Donahue, Kazer, Smith, and Fitzpatrick (2011) implemented a 21-hour geriatric nursing education program with 92 nurses. Participants completed a pretest and posttest survey about geriatric knowledge and attitudes. Significant differences were found between pretest and posttest results about older adults. In addition, program evaluation and success in achieving certification in gerontological nursing showed the educational program had a positive effect. While certification denotes expertise in any professional discipline, less than 1% of nurses are certified in gerontological nursing (Gray-Miceli et al., 2014).

The majority of nurses who provide care to older adults lack formal education and knowledge about gerontological nursing (Gray-Miceli et al., 2014). Penney, Poulter, Cole, and Wellard (2016) explored RNs' ($N = 13$) perceptions of nursing assessment and core skills identified as necessary to care for older adults. The findings demonstrated that RNs use a range of skills when assessing older persons. The skills identified were based on years of personal and professional experience. Differences were reported between the descriptions nurses gave and their observations during their interactions with older adults. Similarly, Faulk et al. (2007) implemented a descriptive study to determine if an increase in knowledge occurred among LPNs as care providers ($N = 15$) after a 32-hour geriatrics education program. The findings showed a significant difference in pretest and posttest scores for three out of eight learning modules. Written comments indicated an increase in participants' knowledge.

Kang, Moyle, Cooke, and O'Dwyer (2016) used a mixed-methods study with 40 participants. They used a pretest-posttest design and conducted interviews to evaluate the effect of an educational program on acute care nurses' knowledge, attitudes and potential for family caregiver involvement in the care of older adults with cognitive impairments. The findings showed the program had a positive impact on nurses' knowledge of cognitive impairments and attitudes toward older adults, including an increase in nurses' efforts to involve family caregivers in cognitive impairment care.

To improve nurses' knowledge about specific cognitive impairments related to delirium in hospitalized older adults, clinical nurse specialists Middle and Miklancie (2015) recommended assessing nurses' baseline knowledge, followed by using educational strategies, standardized delirium assessment tools, a geriatric resource nurse,

geriatric case studies, simulations, grand rounds, and structured programs. In a descriptive study, Malenfant and Voyer (2012) examined the knowledge of 87 home care nurses regarding detecting delirium in older adults living at home. The results showed that nurses had limited knowledge about the criteria for delirium, including the signs and symptoms of delirium and the tools to use. In addition, Lindsey (2009) asserted that nurses need to know how to administer and manage psychotropic medications to manage older adult patients with cognitive impairments.

Robinson and Mercer (2007) evaluated factors that contributed to the length of stay in the emergency department (ED) to determine nurses' knowledge and perceptions about older adult care. A total of 206 older adults' medical records were appraised. The ED nurses completed the Geriatric Institutional Assessment Profile regarding knowledge of older adult care. The findings indicated the most common reason for an ED visit among older adults was falls. The average amount of time older adults spent in the ED was greater than five hours. Nurses scored low in pressure ulcer prevention and urinary catheter usage. Nurses were challenged to combine their gerontological knowledge with pre-existing knowledge and skills based on emergency room practice.

According to (Dahlke & Fehr, 2010), nurses need to know how to care for older adults in various health care environments. For example, in long-term-care facilities, older adults may be placed on extended bedrest, potentially resulting in deconditioning, defined as a loss of physical fitness related to the inability to maintain optimal levels of physical activity (Gillis & MacDonald, 2005). In a cross-sectional survey study, Gillis, MacDonald, and MacIsaac (2008) evaluated 157 nurses for their knowledge, attitudes, and confidence to prevent and treat deconditioning in older adults. The findings showed

substantial gaps in nurses' knowledge and understanding about deconditioning and a need for more education to prevent deconditioning among older adults. Nurses' levels of confidence to prevent deconditioning were modest. Participants expressed positive attitudes toward nurses' role in deconditioning care. Barriers to deconditioning included limited education, inadequate staffing, and a lack of recognition of preventive resources.

To improve nurses' knowledge about older adults with cancer, Burhenn, Ferrell, Johnson, and Hurria, 2016 surveyed oncology nursing staff before ($n = 422$) and after ($n = 375$) implementing an educational program regarding geriatric care. A comparison analysis of surveys demonstrated a significant increase in nurses' knowledge of geriatric care after the educational program. The results also indicated the need to provide oncology nurses with more education about geriatric care, including more resources. Nurse educators in academia and staff development continue to implement learning activities to improve nurses' knowledge about the care of older adults. In the literature, nursing education was repeatedly shown to be the best practice for improving nurses' knowledge about caring for older adult patients (Bednash et al., 2011; Houde & Melillo, 2009; Ironside et al., 2010; Mezey et al., 2010; Tagliareni et al., 2012).

**Nursing Students' Knowledge about Older Adults**

Nursing students need knowledge about older adults to promote healthy aging and to manage chronic and complex care needs (Baumbusch et al., 2012; Burbank et al., 2006; Dahlke & Fehr, 2010; Flood & Clark, 2009; Mandville-Anstey, Ward, Grainger, & Foley, 2014; Mezey et al., 2010; Tagliareni et al., 2012). Researchers contend that undergraduate students in nursing, medical, social work, psychology, and other health care programs do not obtain enough knowledge or have sufficiently rigorous learning

experiences in academia about caring for older adults (Abendroth & Graven, 2013; AlSenany & AlSaif, 2014; Gray-Miceli et al., 2014; Lange et al., 2006; Newell, Raji, Lieberman, & Beach, 2004; Rhee, Wellman, Castellanos, & Himburg, 2004; Welford, 2013). Nursing students usually obtain knowledge about older adults in learning environments that include classrooms, various clinical settings, simulation, and skills laboratories with other students, nurse educators, and health care workers (Agnew, 2008; Berntsen & Bjork, 2010; Tagliareni et al., 2012; Trail Ross, 2012).

In the literature, Palmore's Facts on Aging Quiz (FAQ) is widely used to investigate nurses' and nursing students' knowledge of older adults (Boswell, 2012; Carmel, Cwikel, & Galinsky, 1992; Flood & Clark, 2009; Hanson, 2014; Harrison & Novak, 1988; Lambrinou, Sourtzi, Kalokerinou, & Lemonidou, 2009; Lovell, 2006; Mandville-Anstey et al., 2014; McLafferty, 2005; Palmore, 1977; Ryan & McCauley, 2003; Sheffler, 1995; Shoemake, Bowman, & Lester, 1998; Williams, Lusk, & Kline, 1986). Williams et al. (2007) used the FAQ to investigate undergraduate nursing students' knowledge and the Aging Semantic Differential tool to evaluate attitudes toward older adults in their first and fourth years of a baccalaureate program after the program introduced a context-based learning (CBL) curriculum. Fourth-year nursing students who experienced the CBL curriculum were compared with nursing students enrolled in their fourth and final years of a traditional, lecture-based baccalaureate program. The findings showed no significant differences in knowledge and attitudes between fourth-year CBL and fourth-year traditional students.

Baumbusch et al. (2012) designed a one-group, pretest-posttest study of nursing students' knowledge and beliefs about the nursing care of older adults after an

introductory course integrated with both adult and older adult content. Students completed the FAQ and Perceptions of Caring for Older People scale and answered open-ended questions about their experience. The results demonstrated students' knowledge and beliefs about older adults improved. Similarly, Barba and Fay (2009), Gilje et al. (2007), and Plonczynski et al. (2007) investigated nursing students' knowledge of aging and reported that nursing students often graduate with inadequate knowledge regarding how to provide care to older adults. Inclusion of geriatric content in nursing curricula consistently results in improvements in students' knowledge, skills, and attitudes about caring for older adults (Aud et al., 2006; Baumbusch et al., 2012; Potter et al., 2013; Souder, Beverly, Kitch, & Lubin, 2012; Tagliareni et al., 2012). Yet, some nursing programs do not provide focused education in gerontological nursing (Deschodt et al., 2010; Gilje et al., 2007; King, 2004; Xiao et al., 2008). Welford (2013) found that students with prior interactions and work experience with older adults seem to develop more knowledge after a course compared with students without prior exposure to older adults. Researchers have suggested schools of nursing consider including at least one faculty member with expertise in gerontological nursing to improve students' learning outcomes (Gray-Miceli et al., 2014).

## Nurses' Attitudes toward Older Adults

A review of the literature regarding nurses' attitudes toward older adults is essential to nursing practice. Nursing practice commonly occurs within a social structure (ANA, 2010). According to Provision 2 of the nurses' code of ethics, a "nurse's primary commitment is to the patient, whether an individual, family, group or community" (ANA, 2010, p. 11). Therefore, a nurse's positive attitude may create a positive nurse-patient

relationship and improve patient outcomes (Street, Makoul, Arora, & Epstein, 2009). In contrast, negative attitudes of nurses toward older adults could cause injury and compromise patient safety (Cronenwett et al., 2007). Ageist views among nurses in varied practice settings could impede the delivery of quality nursing care to older adults (Gallagher, Bennett, & Halford, 2006; Kagan & Melendez-Torres, 2015).

Nurse researchers have studied nurses' attitudes toward older adults extensively worldwide (Adibelli & Kilic, 2013; Claes, Devriendt, Tournoy, & Milisen, 2015; Courtney et al., 2000). Dikken, Hoogerduijn, and Schuurmans (2015) reported the most commonly used instruments in the literature to measure nurses' attitudes toward older people are Kogan's Attitudes toward Old People scale (KOP), the Attitudes Toward Older People questionnaire, the Aging Semantic Differential (ASD) scale, and the Multifactorial Attitude Questionnaire (MAQ). Armstrong-Esther, Sandilands, and Miller (1989) used the Kogan's Attitudes toward Aging instrument to survey the attitudes of nurses ($n = 74$) and volunteers ($n = 8$) toward older adults in acute care. The findings indicated slightly positive attitudes were correlated with higher education and work preference in geriatrics, and higher ratings were given to nurse-patient communication and lower ratings to basic nursing care.

Most research studies about nurses' attitudes toward older adults frequently measured knowledge as well (Lambrinou et al., 2009). For example, Prevost, Wilson, & Gerber (1991) implemented a research study with the FAQ and KOP surveys to investigate the knowledge and attitudes of acute care nurses ($N = 162$). The findings presented moderately positive attitudes toward aging and low knowledge levels. Knowledge about and attitudes toward older adult patients were found to be positively

correlated. Intensive care unit (ICU) nurses showed higher knowledge and attitude scores than medical-surgical nurses. Similarly, Wilkes, LeMiere, and Walker (1998) used the FAQ and ASD scale instruments to examine nurses' ($N = 261$) knowledge about and attitudes toward older adult patients in an acute care hospital setting. The findings showed that nurses with reasonable knowledge about older adults had negative attitudes. In contrast, Hope (1994) examined nurses ($N = 76$) in various practice settings and their attitudes toward older adult patients using both KOP and FAQ. The findings demonstrated that nurses in an acute care hospital had better attitudes compared with nurses assigned to a medical unit.

Lookinland and Anson (1995) used KOP to identify factors promoting favorable attitudes in nurses ($n = 61$) and future health care professionals ($n = 62$). The findings demonstrated nurses' attitudes were more positive than those of future health care professionals, and female nurses were more positive toward older adults than male nurses. Future health care professionals in acute care had more positive attitudes than individuals in a long-term care setting. Nurses' attitudes toward older adults and the views of nurses who work with older adults were found to be negative (Mantle, Funke-Furber, & McIvor, 2003). The more dependent older adults are on nursing care, the more likely nurses are to project a negative attitude toward them (Holroyd et al., 2009).

In a cross-sectional observational study, Furlan et al. (2009) used KOP to examine the attitudes of nurses from an acute care unit ($n = 15$) and from a rehabilitation center ($n = 18$) and the potential causes of ageist attitudes toward older patients with spinal cord injuries. The findings showed that nurses working in a rehabilitation setting were statistically comparable regarding their attitudes toward older patients. Nurses working in

the acute care unit held more ageist attitudes than their rehabilitation center counterparts ($p$ = .003). A higher level of education and working in the rehabilitation setting were associated with fewer ageist attitudes ($P$ < .03). These findings showed an association between older age and more positive attitudes toward older patients ($p$ = .069). In a sizeable study, Kydd, Touhy, Newman, Fagerberg, and Engstrom (2014) used the MAQ to examine attitudes of nurses ($n$ = 2,585), and nursing students ($n$ = 1,064) in Germany, Scotland, Slovenia, Sweden, Japan, and the US regarding providing care for older adults and the esteem that comes with working with older adults. The findings showed differences in attitudes among the six countries for both nursing students and nurses ($p$ < .001). The highest scores for nurses were reported in Scotland and Sweden, and the lowest scores were reported in Germany and Japan. Nursing students in Scotland and the US demonstrated the highest mean scores, and Slovenia and Sweden had the lowest scores.

Adibelli and Kilic (2013) used the KOP to evaluate nurses' ($N$ = 282) attitudes toward older adult patient care and difficulty experienced caring for older adults. The findings indicated insufficient knowledge, skills, and experience among nurses toward older adult patient care. Challenges caring for older adults were associated with inadequate physical conditions and technical equipment in hospitals, including administrative and communication problems. Nurses' overall attitudes toward older people were positive (98.83 + 11.19). More recently, Almeida Tavares, Silva, Sá-Couto, Boltz, and Capezuti (2015) evaluated nurses' knowledge and attitudes toward hospitalized older adult patients and found nurses working in critical care had more negative attitudes toward older adults with geriatric syndromes compared with nurses in

other hospital units. Recently, nurse researchers used the KOP to investigate the effect of a geriatric nurse education program on the attitudes of hospital nurses, and the results indicated the education program improved attitudes (Donahue et al., 2011).

**Nursing Students' Attitudes toward Older Adults**

One of the goals of gerontological nursing is to ensure nursing students have a positive attitude about caring for older adults (King, Roberts, & Bowers, 2013). Both theoretical and empirical studies show nursing students' attitudes toward older people are often negative before a course or experiential learning activity and more positive after a course or hands on experience (Adibelli & Kilic, 2013; Cozort, 2008; Hanson, 2014; Haron, Levy, Albagli, Rotstein, & Riba, 2013; Heise et al., 2012; Holroyd et al., 2009; King et al., 2013; Koren et al., 2008; Kydd et al., 2014; Kydd, Wild, & Nelson, 2013; Lane & Hirst, 2012; Liu, Norman, & While, 2013; Topaz & Doron, 2013; McLafferty, 2005; Neville, 2015; Swanlund & Kujath, 2012; Welford, 2013).

In the literature, the terms perceptions, behaviors, and attitudes are repeatedly discussed together (Cozort, 2008; Holroyd et al., 2009). Studies pertaining to students' behaviors and attitudes in the context of perceptions of older adults will be included in this section of the literature review. Several empirical studies were found in the literature that measured students' perceptions of older adults using the FAQ (Burbank et al., 2006; Cozort, 2008; Fabiano, Waldrop, Nochajski, Davis, & Goldberg, 2005; Gorelik, 2000; Rogan & Wyllie, 2003). The original FAQ included 25 true or false statements to identify general knowledge, bias, and perceptions about older adults (Palmore, 1977). Hence, Baumbusch et al. (2012) designed the Perceptions of Caring for Older People scale, a 20-

item instrument scored on a five-point Likert scale that features 10 positive items and 10 negative items to measure perceptions about caring for older people.

According to Fox (2013) and King et al. (2013), nursing students' perceptions of older adults tend to be negative based upon preconceived notions. Several researchers indicated students were more likely to hold positive attitudes toward, perspectives on, and perceptions of older people after the application of curriculum activities (Abendroth & Graven, 2013; Algos, Peters, Ramjan, & East 2016; Baumbusch et al., 2012; Holroyd et al., 2009). Students' attitudes toward and perceptions of older adults changed moderately in a positive direction after participation in learning activities courses and clinical rotations (Berntsen and Bjork, 2010; Holroyd et al., 2009; King et al., 2013; Swanlund & Kujath, 2012).

Lamet, Sonshine, Walsh, Molnar, and Rafalko (2011) investigated a creative-bonding intervention with students ($n = 56$) using art activities, and ($n = 14$) students were pretested and posttested for attitudes toward older people, self-transcendence, and willingness to serve. The results showed the creative-bonding intervention improved attitudes toward older people with negative attitudes significantly ($p = .008$), and no significant differences were found in self-transcendence and willingness to serve. Willingness to serve results were significant ($p = .08$). Curricula changes that incorporated creative activities, such as creative-bonding interventions with larger and equal numbers in student groups, including longitudinal follow-up to identify long-term results after graduation, were recommended. In a similar study, Chen and Walsh (2009) used a quasi-experimental design to compare the effectiveness of a creative-bonding intervention to promote self-transcendence and positive attitudes toward older adults

among nursing students ($n = 100$) compared with a control group ($n = 94$). The results indicated the creative bonding intervention group had significantly more positive attitudes toward older adults than the control group.

In a cross-sectional descriptive study, Koren et al. (2008) examined the perceived learning needs and attitudes of pre-licensure undergraduate nursing students ($N = 200$) toward older adults. The findings showed students' knowledge of gerontology and their attitudes were correlated with variables related to comfort and confidence in caring for older persons. Students identified their desire for more information on selected topics, such as supportive resources for elders and caregivers. Students who intended to learn more about gerontological nursing chose more topics. The most commonly chosen topics were end-of-life issues and specific disorders. Ryan and McCauley (2004) implemented a descriptive study to determine the knowledge and attitudes of junior and senior baccalaureate nursing students toward older adults. Students ($N = 55$) were surveyed with Palmore's revised Facts on Aging Quiz I (FAQ I), and Kogan's Attitudes toward Old People Scale. The findings showed neither junior nor senior level students scored high on the (FAQ I); analysis of variance showed a significant difference in senior students' knowledge about older adults is greater compared with junior students. Also, the mean KOP score of both groups did not indicate a high positive attitude toward older adults, and there was no significant difference between the groups in this area. Relationships between students' demographic characteristics and KOP results show more positive attitudes among Hispanic students compared with African-American students. Also, KOP results are supportive of research, indicating nursing students often lack knowledge about older adults and need opportunities to develop positive attitudes toward them.

Wang et al. (2010) applied the KOP to nursing students ($n = 125$) with one year of work experience with older adults and first-year students ($n = 95$) with no previous experience and reported an association between positive attitudes and work experience.

## The Impact of Students' Attitudes toward Older Adults

## Employment Preferences

Nursing students' perceptions of and attitudes toward older adults are often studied to generate information associated with employment preferences post graduation (Neville, 2015). Koehler et al. (2016) designed a quasi-experimental pretest-posttest study over three semesters ($n = 98$, $n = 80$, and $n = 88$) with a total of 266 participants to examine the impact of a stand-alone gerontological nursing course on BSN nursing students' perceptions of working with older adults. A significant increase ($p = .000$) in positive perceptions of working with older adults among nursing students was found after the students completed the course. Participants who reported having previous experience with older adults (83.5%) had higher perception scores at pretest than those without ($p = .000$). Posttest scores showed no significant differences between these two groups with both groups having increased perception scores ($p = .120$), including an increase in students' preference for working with older adults.

In a pilot study, Zembrzuski (2000) administered a survey to new associate's-degree graduates ($N = 183$) about gerontological nursing courses and job preferences. Respondents who worked in nursing homes ($n = 41$), hospitals ($n = 34$), and home care ($n = 5$) were included in the study. Results indicated that new graduates preferred to work in acute care hospitals versus nursing homes. The findings showed that new nursing graduates working in nursing homes felt gerontological nursing courses were beneficial

($x^2 = 10.76$, *df2*, $p < .01$); 84% of the sample believed their gerontological nursing course was helpful with a significant greater proportion of those working in nursing homes ($X^2 = 10.76$, *df2*, $p < .001$). Evidence showed the age of new graduates was significantly related to working with older adults in nursing homes ($X^2 = 10.76$, *df2*, $p < .01$). For example, the older the student, the greater the possibility of working in a nursing home. Nurses working in nursing homes (*n* = 41) reported three reasons in order of importance to explain their personal reasons for working in nursing homes: 34% were unable to find a position in an acute care setting, 20% reported a desire to work with the elderly population, and 17% considered the length of travel to the nursing home reasonable. In contrast, new graduates working in hospitals reported their ability to obtain a position in acute care was most important (59%), followed by disinterest in working with elders (24%) and a lack of knowledge of gerontological nursing (18%), although they had the same education as other participants.

Fagerberg, Winblad, and Ekman (2000) conducted a longitudinal qualitative study of nursing students (*N* = 30) to understand work preferences. The researchers reported positive attitudes among students toward older adults and a reluctance to work in long-term care. Students viewed long-term care as having too slow of a pace, boring, and physically demanding. In addition, they saw the setting as isolating and with no support system for new graduates. Happell (2002) conducted a longitudinal study of undergraduate nursing students in the beginning of a nursing program (*n* = 793) and at the end of the nursing program (*n* = 524) to examine attitudes and work preferences. The findings indicated students' attitudes toward older adults improved over time. Students reported personal fears related to older adults' recovery processes, including death and

dying issues. They also described working with older adults as boring, frustrating, and unpleasant. In a similar study, Henderson, Xiao, Siegloff, Kelton, and Paterson (2008) surveyed 330 first-year nursing students at the commencement of their nursing program to evaluate attitudes toward and preferences for working with older adults. The returned surveys ($n = 262$) and the results of the study indicated that students had positive attitudes toward older adults. The ranking of practice settings and populations showed students' preference for working with older adults was minimal and due to limited challenges, fear of end of life care, and previous negative experiences with older adults. To increase students' awareness about ageism and to promote interest in caring for older adults King et al. (2013) and Schroeder (2015) found that early exposure to gerontological nursing could improve student's attitudes and employment preferences.

In a qualitative study, Knecht, Milone-Nuzzo, Kitko, Hupcey, and Dreachslin (2015) designed a qualitative study to understand job satisfaction and dissatisfaction to work in long-term-care among LPNs. Thirty-seven LPNs participated in focus-group sessions. The following four themes emerged regarding LPNs' job satisfaction: value, real connection, empowerment, and growth. Findings regarding LPNs' job dissatisfaction were associated with working conditions. Heise et al. (2012) found that integrated courses, simulations, and positive clinical experiences could improve students' knowledge and attitudes regarding careers in gerontological nursing.

**Nurses' Competency of Older Adults' Care Needs**

Several scholars have discussed nurses' competency of older adults' care needs (Campbell & Jeffers, 2008; Mueller et al., 2011). However, there are few empirical studies measuring nurses' competency of older adults. Researchers posited that nurses

with competency in geriatrics can provide quality care to older adults (Mauk, 2010; Stierle et al., 2006; Tabloski, 2014). Gray-Miceli et al. (2014) indicated that nursing programs should hire at least one nurse educator who specializes in gerontological nursing to ensure competency among the nursing workforce. Competency in nursing practice is often associated with certification in a specialized area (American Nurses Credentialing Center, [ANCC], 2010). The ANCC offers certification in gerontological nursing for RNs who care for older adults, which has been shown to decrease failure to rescue, and improve patient mortality (Mezey, Mitty, Burger, & McCallion, 2008).

More than 60% of LPNs practice in geriatrics care settings (National Council of State Board of Nursing [NCSBN], 2010). Certification in geriatrics is not offered to LPNs (ANCC, 2010). Moreover, a limited number of nurses have acquired competency in geriatric nursing (Adibelli & Kilic, 2013; Mezey et al., 2008; Tagliareni et al., 2012). A common misconception among consumers is nursing licensure and employment indicate competency (S. A. Smith, 2012).

In 2002, the ANA, the American Nurses Foundation, the ANCC, and the John A. Hartford Foundation developed the Nurse Competence in Aging Initiative (Stierle et al., 2006) to encourage nurses who already held expertise in a nursing specialty to consider certification in geriatrics. Recently, Esterson, Bazile, Mezey, Cortes, and Huba (2013) reflected on a decade of collaboration between specialty nursing associations and the Hartford Institute for Geriatric Nursing (HIGN). The HIGN incorporated an array of strategies to assist specialty associations in incorporating geriatrics best practices, which resulted in increased awareness of the importance of educating and training specialty

practice nurses in geriatric care within the associations. In addition, resources to meet the growing needs of association members in varied practice settings were provided.

In a separate study, Scholder, Kagan, and Schumann (2004) reported on enhancing geriatric competence, knowledge, skills, and attitudes of nurses in approximately 60 national specialty-nursing associations as part of the Nurse Competence in Aging Project, which sought to improve the quality of care for older adults. To improve RNs' geriatric clinical competence in long-term care, Cramer et al. (2014) used a mixed-methods design and implemented a continuing education course to prepare RNs ($N = 84$) for national board certification. The certification pass rate was 98.5%, and nurses showed improved technological competence. In addition, a multivariate analysis was used to examine the impact of RN certification on empowerment, job satisfaction, turnover intent, and clinical competence. The results showed certification significantly improved RNs' empowerment, satisfaction, and competence. A fixed-effect analysis showed turnover intent was founded on empowerment, job dissatisfaction, and competency ($F = 79.2$; $p < .001$). Changes in empowerment ($t = 1.63$, $p = .11$) and competency ($t = -0.04$, $p = .97$) did not affect changes in job satisfaction. These findings indicate RN certification can reduce high turnover rates, which negatively impact patient safety and quality in long-term care.

As part of the Nursing Home Collaborative Project, Bourbonniere and Strumpf (2008) engaged in a literature review to determine best practices to support geriatric competency among RNs working in nursing homes. Bourbonniere and Strumpf (2008) recommend the following after the literature review: (a) design a standardized curriculum that is meaningful to all nursing home staff and facilitates certification; (b) individualize

the delivery method, goals, and educational materials to each facility, unit, and staff group; (c) deliver interactive educational standards over one hour or less onsite or in easily accessible areas; and (d) identify and develop a cadre of advanced practice gerontological nurses through academic partnerships to serve as educators and consultants to nurses in nursing homes.

To develop an interdisciplinary geriatric training model, Mezey et al. (2008) mapped and compared geriatric competencies with geriatric professional organizations in dentistry, medicine, nursing, pharmacy, and social work. The findings demonstrated overlaps and differences in geriatric competencies across disciplines. For example, the discipline of dentistry addressed all domains mapped on the geriatric competency grid. Social work was deficient in most domains compared with the other disciplines. Similarly, Damron-Rodriguez (2008) engaged in a comparison analysis of social workers' geriatric competencies as identified by the Leadership Institute and Council on Social Work Education and the AACN, both of which were funded by the John A. Hartford Foundation. While variances were found between the competencies of nurses and social workers, competencies among interdisciplinary teams were critical to quality geriatric care.

Lee and Fletcher (2002) implemented a geriatric resource nurse model to improve patient outcomes, including providing nurses and unlicensed assistant personnel with essential knowledge about providing quality care to older adults. As a result, self-learning modules and assessment tools were developed to provide a framework of continuing education initiatives in gerontological nursing.  To address the competency gap among nurses regarding pain management in older adults, Swafford et al. (2014) implemented

Geriatric Pain Collaborative Web site initiative (geriatricpain.org). The initiative improved nurses' knowledge and competency regarding older adults. Swafford et al. (2014) also conducted a pilot test of the Geriatric Pain Knowledge Assessment with RNs and LPNs ($N = 55$) with a completion rate of 60% (30 RNs and 3 LPNs). The psychometric evaluation of the pilot test focused on the reliability, item difficulty, and item discrimination of the test. Cronbach's alpha of 0.60 was obtained. Scores on the 46-item test ranged from 22 to 41 with a mean of 34 ($SD = 4.0$).

The National Hospital Competencies for Nursing Care of Older Adults project of the John A. Hartford Foundation Institute for Geriatric Nursing at New York University College of Nursing was designed as a performance evaluation instrument to delineate competencies in the care of older adults for staff RNs (Mezey et al., 2006). Staff development educators found the geriatric competencies for RNs in hospitals useful for assessing the initial and ongoing competency of RNs and their knowledge, skill, and behavior in caring for older adults (Mezey et al., 2006). The Geriatric Competencies is also a valuable tool for staff development educators to assess staff at the time of employment, including before and after in-services. In the literature, the Geriatric Competencies for RNs in Hospitals is also known as the Hartford Geriatric Nurse Competency tool. In this dissertation study, the Hartford Geriatric Nurse Competency tool was used to examine senior nursing students enrolled in a BSN, ADN, and PN program perceived competency about older adults.

### Nursing Students' Competency of Older Adults' Care Needs

Nursing students' competency of older adults' care needs is vital to the nursing workforce (Brown, Nolan, & Davies, 2008; Mayo, Harris, & Buron, 2016; Mezey et al.,

2010). Mauro et al. (2012) contended that nursing students need competency in geriatrics to manage critical information, make important clinical decisions, and collaborate effectively with interprofessional teams. Although nursing faculty and clinical instructors are vital to nursing education (Burbank, Burkholder, & McCool, 2002). Pre-licensure BSN, ADN, and PN education was not designed to prepare nurses at the specialty level (Corazzini et al., 2013). Nursing scholars and health care professionals across disciplines have reported challenges in defining and evaluating competency in nursing (Damron-Rodriguez, 2008; Mezey et al., 2008; S. A. Smith, 2012). Research studies of nursing students' competency of older adults' care are scarce.

It has been shown that students in nursing and across various health care disciplines have limited knowledge and competency about older adult care needs (Flood & Clark, 2009; Koren et al., 2008; Latimer & Thornlow, 2006). De Witt, Weckmann, Nguyen, Parsons, and Hughes (2013) engaged in a cross-national, cross-sectional study and surveyed attitudes and perceived competence of final-year medicine, nursing, and pharmacy students related to end-of-life care and dementia in older adults. The findings showed nursing students were more likely to report a high level of confidence and competence regarding the psychosocial aspects of care related to expressing empathy, prompting goals of care, and discussing religious and spiritual concerns of older adults. Nursing students also showed a higher level of confidence and competence ratings for pain management than medical students but showed low confidence and competence with treatment options at the end of life, breaking bad news, and making hospice referrals. Also, discussing challenging topics directly with family members affected nursing students' confidence significantly.

Researchers indicated that geriatric competency among nursing students could ensure quality care for older adults (Mauk, 2010; Tabloski, 2014; Tagliareni et al., 2012). Pence (2010) implemented a pilot study with eight PN students to evaluate a skilled nursing facility as a final clinical site. The findings demonstrated a successful academic and practice partnership between the school of nursing and the skilled nursing facility, including opportunities for students to gain confidence and competency in caring for older adults. Clinical experiences offered in a skilled nursing facility could prepare practical nursing students to care for older adults and transition from theory to practice.

Stakeholders generated a plethora of resources to ensure geriatric competence for pre-licensure BSN programs. Since 1996, substantial funding from the John A. Hartford Foundation, the AACN, and the Hartford Institute for Geriatric Nursing at NYU College of Nursing has contributed to developing geriatric competencies for BSN programs (AACN, 2010). Web-based teaching materials were made available at ConsultGeriRN (http://consultgerirn.org), and the Geriatric Nursing Education Consortium train-the-trainer programs (AACN, 2010) have reached more than 80% of BSN programs. These efforts are further supplemented by educational initiatives in geropsychiatry (Beck, Buckwalter, Dudzik, & Evans, 2010) and through Web-based modules enhancing the use of nursing homes as clinical placements and assisting faculty in integrating geriatrics concepts into clinical experience (http://consultgerirn.org).

**Nursing Curricula and Older Adults**

The exponential growth of older adults with multiple health care needs underscores the need for gerontological nursing in curriculum (Koren et al., 2008).

In academia, the purpose of a nursing curriculum is to assist students in obtaining a body of knowledge, attitudes, and skills to practice as nurses (Billings & Halstead, 2015). Nursing faculty develop nursing curricula to ensure students acquire essential knowledge and skills that mirror the needs of society and nursing workforce trends (Forbes & Hickey, 2009). Gray-Miceli et al. (2014) indicated that preparing nurses to meet the care needs of older adults is one of the most significant challenges of nursing education. Nursing curricula inclusive of geriatric content in BSN, ADN, and PN programs will now be discussed in the next three sections independently.

**Bachelor of Science Degree Programs**

BSN nursing programs have consistently designed stand-alone courses (Azzaline, 2012; Blais et al., 2006; Latimer & Thornlow, 2006; Wallace et al., 2005) and courses integrated with geriatric content within nursing curricula (Abendroth & Graven, 2013; Hancock et al., 2006; Miller et al., 2009; Murphy et al., 2014). In a national survey of gerontology in baccalaureate nursing programs, Rosenfeld, Bottrell, Fulmer, and Mezey (1999) distributed 598 surveys to baccalaureate nursing programs. The findings were based on responses from 480 programs, an 80.3% response rate. The majority of programs (63%, $n = 299$) reported the integration of gerontological content into one or more courses. In addition, 37% of programs ($n = 177$) reported that stand-alone courses in geriatrics were available. Of these, 23% ($n = 110$) required stand-alone courses, and 14% ($n = 67$) offered elective courses. Of the 177 programs with a stand-alone course, the majority reported having both stand-alone courses and integrated geriatric content in the curricula.

In a landmark study, Berman et al. (2005) collected data about geriatric content in BSN programs. The findings demonstrated that in 2003, 92% of programs ($n = 514$) had integrated content in one or more courses compared with 63% ($n = 480$) of programs reporting geriatric content. In 2003, 34% of BSN programs ($n = 190$) reported stand-alone courses in geriatrics, a decline from 37% in 1997. A comparison of generic BSN programs requiring a stand-alone course in 1997 to 2003 showed that in 2003, 190 nursing programs offered stand-alone courses, and of these, 78% were required, compared with 69% in 1997. Data pertinent to RN-BSN programs was not included, and focused primarily on pre-licensure nursing statistics.

The debate continues among researchers about whether gerontological nursing content should be integrated into curricula or developed as stand-alone courses (Baumbusch et al., 2012; Hancock et al., 2006; Rodgers & Gilmour, 2011; Wallace et al., 2005). There is evidence to support both approaches. Baumbusch et al. (2012) found that even when integrated with general adult content, gerontological nursing content positively influences students' knowledge and beliefs about older adult care. Furthermore, there is evidence that much of the baccalaureate nursing curricula in the US is incorporating increased gerontological content, including diverse clinical sites (Gilje et al., 2007). Many baccalaureate nursing programs also include innovative activities in curricula to improve students' learning outcomes (Azzaline, 2012; Barba & Gendler, 2006; Blais et al., 2006; Brown, Nolan, Davies, Nolan, & Keady, 2008; Campbell & Jeffers, 2008; Cozort, 2008; Dahlke & Fehr, 2010; Dreher et al., 2006; Fulmer, 2007; Fulmer et al., 2005; Gebhardt et al., 2009; Heise et al., 2012; Hirst, Lane, & Le Navenec, 2011; McCleary et al., 2009; Mezey et al., 2005; Miller, 2011; S. J. Smith & Barry,

2013). The exact number of BSN nursing programs lacking geriatric content is not known.

**Associate of Science Degree Programs**

Approximately 60% of all new graduates entering the nursing workforce have been prepared at the associate degree level (IOM, 2010; NLN, 2008). However, literature pertaining to nursing curricula and older adults at the associate of science degree level is sparse. Ironside et al. (2010) designed and implemented a survey study to examine how the care of older adults was included in associate's degree nursing programs. Participants ($N = 531$) from associate's degree nursing programs responded to the survey. The findings demonstrated 48% of schools reported an integrated curriculum, 47% reported a curriculum organized by individual specialty courses, and 5% reported a combination of integration and specialty courses. In addition, 81% of participants reported using nursing homes or long-term care facilities for geriatric clinical experiences in the first year of the program. Focus groups from five nursing programs explored new graduates' challenges caring for older adults and how their programs could have better prepared them to care for older adults. Ironside et al. (2010) contended that (a) standards for teaching geriatrics in associate degree programs are critical to designing nursing curriculum, (b) faculty development is required to aid faculty in accessing evidenced-based resources to support student learning, and (c) the use of innovative clinical models is necessary to highlight chronic and complex care needs of older adults. The exact number of ADN nursing programs lacking geriatric content in curricula is not known.

**Practical Nursing Programs**

There is a paucity of literature pertaining to nursing curricula and older adults in PN programs. Yet, according to the Bureau of Labor Statistics (U.S. Census Bureau, 2010), approximately 753,600 practical nurses are licensed. In addition, approximately 60% of LPNs provide direct care to older adults in nursing homes and long-term care facilities (NCSBN, 2010). The NLN (2014) and IOM (2010) recognize the LPN as a valuable member of the nursing community that significantly contributes to improving the health of the nation, specifically in long-term care facilities, nursing homes, and community-based settings. According to the NCSBN (2010), how LPNs contribute to patient care varies significantly from state to state and based on the nurse practice act. The limited number of research studies pertaining to PN education and older adult care may contribute to assumptions about the health care workforce's inability to provide quality care to older adults.

According to Watman, Escobedo, and Langston (2011), the John A. Hartford Foundation funded over $70 million in geriatric nursing initiatives to advance gerontological nursing content in nursing curricula, including the aforementioned study about associate degree nursing curricula and older adults by Ironside et al. (2010). However, in the literature, no studies or reports were found to show that PN programs benefitted from the Hartford Foundation's investments in promoting older adult care. While researchers have focused on increasing the knowledge, skills, and attitudes of nurses and nursing students educated at the baccalaureate degree level, data and trends from the Florida Center of Nursing showed these individuals are seldom employed in

practice settings where older adults receive care (see Appendix J). The exact number of PN programs lacking geriatric content in curricula is not known.

**Chapter Summary**

This chapter presented the literature review of that which is known and not known (Creswell, 2013) about the influence of aging on the health status, health care needs, and nursing care needs of older adults as well as nurses' and nursing students' knowledge, attitudes, and perceived competency about the care needs of older adults. This literature review also explored the influence of students' attitudes on their employment preferences, geriatrics in nursing curricula, and nursing workforce trends in the state of Florida, particularly in settings in which older adults receive nursing care.

Many nurses are unprepared to provide quality care to older adults. While this problem has appeared in the literature perpetually for several decades, the continued lack of gerontological nursing content across BSN, ADN, and PN programs could further impede the preparation of the nursing workforce, which in turn could negatively influence older adults' health outcomes. The literature review shows BSN programs garnered resources to advance gerontological nursing education through curriculum enhancements. Very few researchers have addressed gerontological nursing education in associate degree programs, and no literature was found to address geriatric education in PN programs. The exact number of nursing programs lacking geriatric content across program types (BSN, ADN, and PN) is not known.

Chapter Three

Methodology

The purpose of this dissertation study is to determine potential differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in the curriculum. This chapter presents information about the research design, an explanation of the instruments, and method of statistical analysis of the data. Three research questions guided this dissertation study.

**Research Questions**

1. What are the knowledge, attitudes, and perceived competency about older adults of senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum?

2. Is there a significant relationship between knowledge, attitudes, and perceived competency about older adults among senior nursing students?

3. Is there a significant relationship between senior nursing students' attitudes and employment preference to work with older adults post graduation?

**Research Design**

The investigator implemented a non-experimental, quantitative, descriptive survey design. According to Groves, Burns, and Gray (2013), a descriptive research design is plausible to examine and describe the characteristics of variables and provide an accurate representation of the variables that are pertinent to the research questions.

Descriptive research is systematic inquiry in which questionnaires and surveys describe a phenomenon of interest (Groves et al., 2013). According to Whitley and Kite (2013), a survey design is plausible for examining relationships, differences, correlations, and associations to determine the level of criterion variables. Strand and Lindgren (2010) used surveys with a group of RNs and enrolled nurses in four different intensive care units to investigate knowledge, attitudes, and barriers to prevent pressure ulcers in patients admitted to intensive care units. A descriptive survey design was used in this dissertation study to examine the influence of a BSN, ADN, and PN program that offer geriatric content in the curriculum for senior nursing student's knowledge, attitudes, and perceived competency about older adults.

## Research Assumptions

Research assumptions are fundamental principles of being "true based on logic or reason without proof" (Polit & Beck, 2012, p. 748). The following are assumptions the investigator believed to be true in this dissertation study. In regard to the subjects, the following was assumed.

- Students will accurately and honestly answer the demographic questionnaire and descriptive research question.

- Students will understand the information the Palmore Facts on Aging Quiz 2, Kogan's Attitudes Toward Older People scale and the Hartford Geriatric Nurse Competency tool are seeking.

- Each student's survey scores will reflect his or her true ability with a degree of error. The margin of error can result from the survey, examiner, examinee, or the environment.

The use of descriptive statistics was used to allow the investigator to explore and compare patterns in the data. Inferential statistics were used to assist the investigator to detect and compare differences and determine if differences were statistically significant (Whitley & Kite, 2013). The investigator assumed the research instruments measured students' knowledge, attitudes, and perceived competency about older adults based on nursing program type. The investigator assumed (a) the Palmore Facts on Aging Quiz 2 measured students' knowledge, (b) Kogan's Attitudes toward Older People scale measured students' attitudes, and (c) the Hartford Geriatric Nurse Competency tool measured students' perceived competency about older adults.

### Setting

The settings for this dissertation study were five academic institutions located in the state of Florida. The first academic institution is a private independent university located in northeast Florida. Approximately 4,000 students are enrolled at the university. The university offers a pre-licensure BSN program that is accredited through the Commission on Collegiate Nursing Education (CCNE). The university also offers geriatric content integrated across the nursing curriculum. The second academic institution is a private, independent research university located in south Florida. Approximately 24,000 students are enrolled at the university. The university offers a pre-licensure BSN program that is accredited through the CCNE. The university also offers geriatric content integrated across the nursing curriculum. The third academic institution is a public university. Approximately 16,000 students are enrolled at the university. The university offers a pre-licensure BSN program that is accredited through the CCNE. The university also offers geriatric content integrated across the nursing curriculum. The

fourth academic institution is a community college. Approximately 26,000 students are enrolled at the community college. The community college, also known as a state college nursing department, offers an associate's degree program that is accredited through Accreditation Commission for Education in Nursing (ACEN) and a practical nursing program, which is not accredited. The community college also offers geriatric content integrated across the nursing curriculum in both the ADN and PN programs. The fifth academic institution is a community college. Over 3,000 students are enrolled at the community college. The community college, also known as a state college nursing department, offers a practical nursing program, which is not accredited. The community college also offers geriatric content integrated across the nursing curriculum in the PN program. The population of interest for this dissertation study was senior-level nursing students enrolled in the final semester of a pre-licensure BSN, ADN, and PN program. The students enrolled in the aforementioned institutions were chosen to participate in this dissertation study because geriatric nursing content in the curriculum would have been addressed. The findings from this dissertation study was used to provide evidence about the sample population knowledge, attitudes, and perceived competency about older adults.

## Sampling Plan

### Sampling Strategy

The sampling strategy in this dissertation study includes a non-probability convenience sample. The sample population were senior nursing students enrolled in the final semester of a pre-licensure BSN, ADN, and PN program. A non-probability convenience sampling method is applicable because the researcher is unable to control

and randomize the nursing programs that students select to attend. The strengths of convenience sampling include cost effectiveness, accessibility, and require less time to acquire than other types of samples (Grove et al., 2013). In addition, the sample population of senior nursing students attended three universities and two community colleges within the state of Florida (Whitley & Kite, 2013). The limitations of convenience sampling are a lack of representation of the total population of senior nursing students enrolled in BSN, ADN, and PN programs, thus limited generalizability.

Multiple biases may exist in a convenience sample (Groves et al., 2013). For example, students who chose to participate in this dissertation study may have felt strongly about the topic under investigation and more likely to take part in the study than students who were uninterested in gerontological nursing (Whitley & Kite, 2013). According to Groves et al. (2013), convenience sampling has enabled researchers to acquire information in unexplored areas. No studies were found in the literature to examine nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in the curriculum.

**Eligibility Criteria**

**Inclusion criteria.** To participate in this dissertation study, students must have been enrolled in their final semester of pre-licensure bachelors of science degree, associate degree, and practical nursing program that offers geriatric nursing content in the curriculum.

**Exclusion criteria.** Students who held an LPN license and were enrolled in a generic or bridge to RN program to obtain an associate degree in nursing were excluded

from this dissertation study. In addition, registered nurses who were licensed and held an associate degree in nursing and enrolled in a RN to BSN program were also excluded.

**Determination of Sample Size**

  **Power analysis**. The sample size was determined through G* power analysis (Faul, Erdfelder, Lang, & Buchner, 2007). The investigator assumed a moderate effect size of 0.25, an error of probability of .05, and power of 0.95. Based on the desired parameters, the G* power analysis calculates the targeted sample size of 87. A sample size of less than 87 would not produce enough power to detect differences about the impact of the independent variables on the dependent variables in this dissertation study.

**Protection of Human Subjects**

  Institutional Review Board (IRB) approval was obtained from the university where the investigator is a student (see Appendix A). Additional IRB approval was obtained from the participating BSN, ADN and PN programs (see Appendix C, D, E, and F). After IRB approval, the primary investigator met with designated personnel at the universities and state colleges' nursing departments to discuss the dissertation study. An email message was developed to recruit potential participants. The email message described general information about the research study (see Appendix Q). Information was included that participation in the study was voluntary, and deciding not to participate held no consequences. Information was also provided about anonymous data collection processes to maintain privacy. Students were assured that their names would not be collected, and no identifying information could connect them to survey data. The investigator collected all the data for this dissertation study electronically utilizing Survey Monkey, a secured online survey platform. The students were informed that by accessing

the link to the survey, they were giving consent to participate in this dissertation study. Access to the survey data was limited to the investigator, dissertation chairperson, and committee members.

**Risks and benefits of participation.** The risks of participation in this dissertation study was minimal. Students may have experienced intimidation and psychological discomfort while completing the survey if they did not know the answers. To reduce intimidation and psychological discomfort, students were informed prior to entering the study that no identifying information could connect them to the results. Indirect benefits of participation would inform nursing education, practice, research, and policy.

**Data storage.** Data were initially collected and stored electronically through Survey Monkey, which is password protected. The research data were downloaded on a jump drive and a personal computer that was password protected and kept at the investigator's home. The data were transferred and entered into the statistical analysis software SPSS version 22.0 on a password-protected computer. All printed material and jump drives were stored in a locked file cabinet located in the investigator's home office. After 3 years, the stored material will be shredded and discarded. No identities were attached or stored in the database. Survey instruments as computer files will be erased.

## Recruitment Strategy

The primary investigator met with the Deans of Nursing from five nursing programs either face to face, by email, and phone regarding the recruitment of students to voluntarily participate in this dissertation study. Based on the recommendations of the Deans, students were recruited through the school of nursing's online communication platform. The Deans of Nursing contacted nursing faculty who posted the recruitment

email (see Appendix Q) with detailed information about the dissertation study and consent of participation. Students who were interested in this dissertation study completed the survey.

## Instrumentation

This section includes information about the instruments, including validity, reliability, and scoring of the instruments in this dissertation study. One survey questionnaire included a combination of questions about participants' demographics, one descriptive question, Palmore's Facts on Aging Quiz 2, Kogan's Attitudes toward Old People scale, and the Hartford Geriatric Nurse Competency tool. The following section describes the instruments.

### Instrument 1: Demographic Data Questionnaire

On the survey questionnaire, the investigator developed questions to identify participants' age, gender, type of nursing program (BSN, ADN, or PN) selected for enrollment, and one descriptive question. Participants were asked in two separate opened-ended questions, what is your age and gender?  In addition, participants were asked to select one option (BSN, ADN, or PN) to identify the type of nursing program selected for enrollment. The descriptive question asked students the following: based on a scale of 1 to 10 (with 1 being *low* and 10 being *high*), How would you rate your employment preference to work with older adults post graduation?

### Instrument 2: Palmore's Facts on Aging Quiz

The Palmore Facts on Aging Quiz is a true-false, 25-item quiz to test general knowledge about older adults (Palmore, 1977). According to Harris and Changas (1994), the Palmore's Facts on Aging Quiz has been used in health care and the social sciences.

The Palmore Facts on Aging Quiz 2 (FAQ2) was used in this dissertation study. The FAQ2 multiple-choice items were developed to correspond to the true-false items while maintaining content coverage. According to Palmore (1992), the FAQ2 multiple-choice version reduces the ability of respondents from guessing correctly. Compared with the true-false version, the multiple-choice version showed a substantial decrease in guessing and increased the probability that the score was an accurate reflection of the respondent's knowledge (Harris & Changas, 1996). The investigator received permission from the primary author, Palmore, to use the FAQ2 for this research study (see Appendix N).

**Validity.** The FAQ2 multiple-choice format was initially administered to sociology students (*n* = 195) and compared with the standard FAQ2 true-false format, which was given to a second group of sociology students (*n* = 180; Harris & Changas, 1996). Palmore (1992) reported content validity of the FAQ after measuring and comparing students enrolled in geriatric course pretest and posttest scores. The findings indicated that after completing a geriatric course, students consistently scored higher on posttest, compared with pretest results. Wolk (1986) used the FAQ2 to determine the differences in their gerontological knowledge of senior students in associate's, baccalaureate, and master of science degree nursing programs. Associate's degree students (*n* = 30), baccalaureate degree students (*n* = 30) and master's degree students (*n* = 30) completed the FAQ2. No significant differences in knowledge among the three groups were identified. Wolk (1986) concluded advanced educational levels of nurses did not increase their knowledge and thus supporting the face validity of FAQ.

**Reliability.** The multiple-choice version of the FAQ2 identified misconceptions about aging more precisely than the true false format (Harris & Changas, 1996). To

measure the degree of reliability and internal consistency of the multiple-choice version

of the FAQ2, Harris and Changas (1994) computed and compared the coefficient alphas

of the true-false version of the FAQ2 (0.07) and the multiple-choice version of the FAQ2

(0.36). The alpha value for the multiple-choice version was substantially higher than that

of the true false version. In addition, Harris and Changas (1994) reported the alpha for the

multiple-choice version as follows: $t(193) = 5.26$, $p < .01$. The reliability of the FAQ

instrument was determined through an internal consistency coefficient measured by

Cronbach's alpha with scores ranging from 0.50 to 0.80 among studies and study

populations (Palmore, 1977).

**Scoring.** The FAQ2 instrument is composed of 25 multiple-choice questions.

Participants were asked to select the response that best reflected their knowledge of older

adults and were instructed to select "do not know" if they did not know the answer.

Harris, Changas, and Palmore (1996) urged participants to follow the quiz instructions to

avoid a miscalculation regarding their knowledge or the lack thereof. The FAQ2 quizzes

were scored according to the number of correct items. The best possible score was 100,

and the lowest possible score was 0. Each question answered correctly yielded four

points. By providing more response options, the multiple-choice format offered the

diagnostic advantage of making the identification of misconceptions about aging more

specific (Harris et al., 1996). The multiple-choice format of the FAQ2 reduces guessing

and increases the probability that the score is an accurate reflection of the participants'

knowledge about older adults. With the multiple-choice format of the FAQ2, there is a

tendency to discriminate better between high and low scores and to identify

misconceptions about aging.

**Instrument 3: Kogan's Attitudes toward Old People Scale**

The Kogan's Attitudes toward Old People scale was used in this dissertation study. The scale assesses attitudes toward old people with respect to both norms and individual differences, stereotypes of old people, and misconceptions about older people (Kogan, 1961). According to Kogan (1961), the KOP was designed based on an ethnic minority stereotype research tool. Kogan (1961) asserted the term ethnic minority was replaced with the term old people because of similarities between old people and people of minority groups. Lambrinou et al. (2009) reported KOP is the most frequently used instrument in the literature and across disciplines to measure attitudes toward older adults. The investigator received permission from the publisher, American Psychology Association, to use the KOP tool (see Appendix O).

**Validity.** To establish content validity, Kogan (1961) used three samples of psychology students: (a) 28 male participants at Northeastern University, (b) 186 male participants at Northeastern University, and (c) 87 male and 81 female participants for a total of 168 at Boston University. Recommendations for item modification was made after the results were analyzed (Kogan, 1961, pp. 44-54). The KOP uses two scales to test positive items and the negative items (OP+ and OP- scales). The scale was refined by making more deliberate use of scaling techniques and by seeking correlations between old people scales and other psychological attributes. Later, Kogan (1961) retested a sample of 89 male and 115 female participants from the Age Center of New England, Boston. The mean ages were 71 for men (54 to 92) and 68 for women (49 to 86). Their mean educational levels were 13.7 years (men) and 12.9 (women). None was

institutionalized. The KOP scale represents a refinement of previous work and is valid to measure students' attitudes towards older adults in this dissertation study.

**Reliability.** In the original testing of the KOP instrument, the reliability of the scale was reported as 0.6996 for the positive scale and 0.8449 for the negative scale (Kogan, 1961). Hicks, Rogers, and Shemberg (1976) reported on the reliability and internal consistency of the KOP scale with Cronbach's alpha coefficients of 0.75 and 0.73 for the negative and positive scales, respectively. According to Donahue et al. (2011), the reliability of the KOP scale was between alpha equaled .85 pretest and alpha equaled .90 posttest. The KOP scale has demonstrated reliable and consistent results. The KOP instrument was reliable to measure senior nursing students' attitudes toward older adults in this dissertation study.

**Scoring.** The KOP instrument is a 34-item tool in which 17 items are rated positively and 17 items are rated negatively on a six-point Likert scale. The point descriptors of the Likert scale are assigned as follows: 1 is *strongly disagree*, 2 is *slightly disagree*, 3 is *disagree*, 4 is *agree*, 5 is *slightly agree*, and 6 is *strongly agree* (Kogan, 1961). Participants were asked to select the responses that reflected their opinion of old people. Higher scores were related to a positive attitude toward older people, and lower scores indicate a more negative attitude. Based on a six-point Likert scale, the scores of KOP can range from 34 to 204.

**Instrument 4: The Hartford Geriatric Nurse Competency Tool**

The Hartford Geriatric Nurse Competency tool was used in this dissertation study. The Hartford Geriatric Nurse Competency tool was developed for nurses working in acute care (Mezey et al., 2006). Recently, Cramer et al. (2014) used the Hartford

Geriatric Nurse Competency tool in a skilled nursing facility to examine the self-evaluation of RNs and LPNs' competency regarding older adults. The investigator received permission from the Hartford Institute of Geriatric Nursing to use the Hartford Geriatric Nurse Competency tool for this dissertation study (see Appendix P).

**Validity.**  According to Mezey et al. (2006), a consultant expert in the use of hospital competencies and geriatrics reviewed the Hartford Geriatric Nurse Competency tool to ensure items were relevant to staff RNs diverse education and experience. Validation of the Hartford Geriatric Nurse Competency tool content and ease of use was tested by geriatric prepared staff RNs on four separate units in a teaching hospital.

**Reliability.**  According to Mezey et al. (2006), the Hartford Geriatric Nurse Competency tool assessed geriatric competencies of RNs in hospitals and is considered reliable for the ongoing assessment of nurses' knowledge, skills, and behavior about caring for older adults. The Cronbach's alpha of .67 indicated an acceptable internal consistency of the Hartford Geriatric Nurse Competency tool (Mezey et al., 2006). The Hartford Geriatric Nurse Competency tool measures eight areas of geriatric competency, including communication, physiological and psychological age changes, pain, skin integrity, functional status, restraining, elder abuse, and discharge planning. The Hartford Nurse Geriatric Competency tool demonstrates reliability to measure senior nursing students' perceived competency of older adults.

**Scoring.**  The scoring of the Hartford Geriatric Nurse Competency tool is based on a total of 29 competency statements that are infused within the eight areas of competency. The first area of competency is communication and includes four statements; the second area of competency is physiological and psychological age

changes and includes five statements; the third area of competency is pain and includes

three statements; the fourth area of competency is skin integrity and includes two

statements; the fifth area of competency is functional status and includes eight

statements; the sixth area of competency is restraining and includes three statements; the

seventh area of competency is elder abuse, which includes one statement; and the eighth

area of competency is discharge planning and includes three statements. The scoring

occurred on a Likert scale of 1 to 3. The numerical values of the Likert scale were

assigned as follows: 1 *no prior experience*, 2 *needs to review*, and 3 *can perform*. The

highest possible score is 87 based on the selection of 3 *can perform* in 29 of the

competency statements. The lowest possible score is 29 based on the selection of 1 *no*

*prior experience* in 29 of the competency statements. The term *self-evaluation by*

*employee* as identified on the Hartford Geriatric Nurse Competency tool was replaced

with the term *perceived competency of students*.

### General Statistical Strategy

The statistical strategy included data preparation, analysis for error, and the

program for statistical analysis of the data. Measures to test assumptions, reflective

analysis of data to answer the research questions, and the extent to which the hypothesis

were statistically significant were also included. The statistical test used for this

dissertation study was applied to three independent groups. Participation was required

among all three groups of senior nursing students enrolled in a BSN, ADN, and PN

program to yield statistically significant results.  Data were obtained from the

demographic questionnaire, which included one research question, the FAQ2, KOP, and

Hartford Geriatric Nurse Competency tool and transferred to SPSS Version 22.0

computer program for data analysis. The investigator also used Intellectus Statistics (2017; https://analyze.intellectusstatistics.com/index.php) online computer program for data analysis. Descriptive statistics about the research participants' age; gender; and type of nursing program selected for enrollment, including employment preference post graduation were used to provide the investigator with characteristics of the sample at the ordinal level. Hypothesis testing was implemented to compare the mean scores and standard deviation between three groups of students enrolled in a BSN, ADN, and PN nursing program that offers geriatric content in the curriculum. For each student participant, the scores from the instruments were tabulated and averaged. Statistics among the three groups and variations across groups were determined via SPSS (Green & Salkind, 2010).

A one-way multivariate analysis of variance (MANOVA) was used to test and compare whether mean differences exist among the three groups for a combination of dependent variables (Green & Salkind, 2010). Following the MANOVA, a one-way analysis of variance (ANOVA) was implemented to identify statistically significant differences, followed by a post hoc pairwise comparison Tukey test to confirm significance (Green & Salkind, 2010). Frequency distributions of the means and standard deviations were also calculated based on all variables. A Pearson correlation coefficient was used to determine if a relationship existed among the variables (Green & Salkind, 2010). The statistical assumptions for this dissertation study were based on MANOVA and Pearson correlation coefficient (Green & Salkind, 2010).

The requirements for using MANOVA statistics are as follows:

- Observations are randomly and independently sampled from the population.

- Each dependent variable has an interval measurement.

- Dependent variables are multivariate normally distributed within each group of the independent variables (which are categorical).

- The population covariance matrices of each group are equal (this is an extension of homogeneity of variance required for univariate ANOVA).

The requirements for using Pearson correlation coefficient are as follows:

- Two continuous variables.

- The two continuous variables are paired.

- A linear relationship exists between the two variables.

- No significant outliers.

- To employ inferential statistics of the null hypothesis test for bivariate normality.

**Data Cleaning**

Data cleaning occurred during the transfer of the data from SurveyMonkey online database to the SPSS computer program (Green & Salkind, 2010). The electronic surveys were visually inspected for completeness before data entry into SPSS. Incomplete surveys were excluded and not included in the analysis. In addition, if a participant marked two or more answers on a survey, the data were excluded to prevent invalid results. Surveys that were completed in their entirety were entered into SPSS, Version 22.0. The investigator used check and balance systems to avoid errors during data entry.

Trochi and Donnelly (2008) indicated there should be no significant outliers. Data cleaning for outliers, data that did not follow a similar pattern were compared with the other data by conducting graphical representations via scatterplots and box plots that

described the behavior of the data and relationships between pairs of variables. The discovery of outliers required the investigator to check the range of possible scores based on the variable presented and double check data entry to determine errors and to apply corrections. For this dissertation study, an outlier is defined as a statistical observation that is markedly different in value from the others of the sample (Green & Salkind, 2010.

**Descriptive Statistics**

Descriptive statistics were used to describe the sample. Frequency distributions were used to report age; gender; and type of nursing program participants selected for enrollment, including employment preference post graduation. The measures of variability, including the standard deviation, minimum, and maximum values of the variables, were summarized using descriptive statistics.

**Reliability Testing**

The Cronbach's alpha scores for the individual instruments were FAQ 2 (0.80), KOP (0.75, 0.73), and Hartford Geriatric Nurse Competency tool (0.67). A Cronbach's alpha score was calculated to assess the internal consistency of the knowledge, attitudes, and perceived competency data collected from participants. Each item was correlated with the total score for the survey.

**Hypotheses Testing**

**Hypothesis 1**. There is a difference in the level of knowledge about facts on aging among senior nursing students who are enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum. The investigator posited the independent variables nursing programs influenced the dependent variable knowledge. To test this hypothesis, a one-way MANOVA was performed to determine differences in knowledge

about facts on aging among senior nursing students enrolled in a BSN, ADN, and PN program. Results indicating differences in students' knowledge required a one-way ANOVA to test the dependent variable knowledge, followed by a post hoc, pairwise comparisons Tukey test and frequency distributions of means and standard deviations of all variables.

**Hypothesis 2**. There is a difference in the attitudes toward older adults among senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum. The investigator posited the independent variables nursing programs influenced the dependent variable attitudes. To test this hypothesis, a one-way MANOVA determined differences in attitudes of senior nursing students enrolled in a BSN, ADN, and PN program. Results indicating differences in student's attitudes required an ANOVA to test the dependent variable attitudes, followed by a post hoc, pairwise comparisons Tukey test and frequency distributions of means and standard deviations of all variables.

**Hypothesis 3**. There is a difference in the perceived competency about older adult care needs of senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curricula. The investigator posited the independent variable nursing programs influenced the dependent variable perceived competency. To test this hypothesis, a one-way MANOVA determined differences in the perceived competency of senior nursing students enrolled in a BSN, ADN, and PN program. Results indicating differences required a one-way ANOVA to test the dependent variable perceived competency, followed by a post hoc, pairwise comparisons Tukey test and frequency distributions of means and standard deviations of all variables.

**Hypothesis 4.** There is a significant relationship between knowledge and attitudes toward older adults among senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric content in the curricula. To test this hypothesis, a Pearson correlation coefficient determined if a relationship existed between students' knowledge and attitudes.

**Hypothesis 5.** There is a significant relationship between attitudes and perceived competency about older adult care needs among senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric content in the curricula. To test this hypothesis, a Pearson correlation coefficient determined if a statistically significant relationship existed between students' attitudes and perceived competency.

**Hypothesis 6.** There is a significant relationship between knowledge and perceived competency about older adult care needs among senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric content in the curricula. To test this hypothesis, a Pearson correlation coefficient determined if a relationship existed between students' knowledge and perceived competency.

**Hypothesis 7.** There is a significant relationship between senior nursing students' attitudes and employment preference to work with older adults post graduation. To test this hypothesis, a Pearson correlation coefficient determined if a statistically significant relationship existed between students' attitudes and their employment preference to work with older adults' post graduation.

## Limitations

Limitations of the study included the following:

- A non-randomized convenience sample was drawn from senior nursing students who are enrolled in a BSN, ADN, and PN program.

- A low sample size could influence generalizability to population.

**Threats to Internal Validity**

A major threat to internal validity for a descriptive design is instrumentation (Trochi & Donnelly, 2008). The investigator adopted three instruments (Kogan, 1961; Mezey et al., 2006; Palmore, 1977), including a demographic questionnaire. There was also a potential threat for selection bias because participants were limited to five nursing programs in the state of Florida. The nursing programs are a true sample of the population of senior nursing students enrolled in BSN, ADN and PN programs.

**Threats to External Validity**

In this dissertation study, a potential threat to external validity was the use of a non-random sample. A non-random sample limits generalizability to the overall population (Trochi & Donnelly, 2008). The demographic data in this dissertation study was a sample of senior nursing students' age, gender, and the type of nursing program (BSN, ADN, and PN) selected for enrollment, which allowed the investigator to make inferences about the representation of the sample. This dissertation study could be replicated with an experimental design and randomization (Trochi & Donnelly, 2008).

<div align="center">

**Chapter Summary**

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This chapter presented information about the research design, an explanation of the instruments, and method of statistical analysis of the data. The aim of this dissertation study was to determine potential differences in the knowledge, attitudes, and perceived competency of senior nursing students enrolled in a BSN, ADN, and PN program about

older adults.  Differences among the represented groups of senior nursing students and comparisons across nursing program types are investigated using SPSS statistical package. This dissertation study maybe limited due to sample size, the use of a non-experimental research design, and non-randomization, which could limit the generalizability of the results to a larger population. This quantitative, non-experimental, descriptive survey design examined three research questions, demographic questions, one descriptive question and test seven hypotheses.

Chapter Four

Results

In this chapter, the results of data analysis are presented and discussed. The purpose of this non-experimental, quantitative descriptive survey study was to determine if there were differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in the curriculum. Data were collected on a survey that included questions to collect demographics, one descriptive question based on employment preference post graduation, Palmore Facts on Aging Quiz 2, Kogan's Attitudes Toward Old People scale, and Hartford Geriatric Nurse Competency tool.

**Study Participants**

Senior nursing students were initially invited to participate in this dissertation study from three nursing programs in northeast Florida. However, the response rate was low for BSN program participants. Therefore, two additional BSN nursing programs were recruited, and after IRB approval (see Appendix B), study participants completed the survey, and an adequate sample size was reached. A total of five pre-licensure nursing programs participated in this dissertation study. Of these, three were BSN programs, one was an ADN and PN program, and there was one stand-alone PN program. One of the BSN programs was located in south Florida, and all the other nursing programs were located in northeast Florida. Data were collected via SurveyMonkey, a secure online

survey tool. A total of 178 senior nursing students participated in the study. A total of 33

senior nursing students survey responses (6 BSN, 16 ADN, and 11 PN) were incomplete

and excluded from data analysis. A sample size greater than 30 for each group of senior

nursing students was obtained based on the results of G* power analysis (Faul, Erdfelder,

Lang, & Buchner, 2007).

## Data Cleaning

Data cleaning occurred after the transfer of the data from SurveyMonkey to

Microsoft Excel. The data set was reviewed for outliers, missing data, and incomplete

data. Using the conditioning formatting tool in Microsoft Excel, the investigator

highlighted blank cells for missing data. Surveys missing data were identified,

documented, and excluded from the data set. A total of 145 surveys of senior nursing

students were completed. The data were entered into SPSS version 22.0 followed by

entry into Intellectus online statistical program for data analysis.

## Descriptive

**Description of the Sample**

The demographic data of senior nursing students enrolled in a BSN, ADN, and

PN program were collected to describe their characteristics. The breakdown of

participants according to program type was BSN ($n = 33$), ADN ($n = 61$), and PN ($n = 51$). Participants in the BSN group had the highest mean age ($M = 36.91$, $SD = 13.53$).

Table 1 presents the means and standard deviations for participants by program type.

Table 1

*Means and Standard Deviations for Participant Age by Program Type*

| Program Type | M | SD |
|---|---|---|
| BSN | 36.91 | 13.53 |
| ADN | 27.31 | 10.53 |
| PN | 28.10 | 10.29 |

The breakdown of participants according to gender was female ($N$ = 130) and male ($N$ = 15). The female group had the highest means of participants ($M$ = 91.57%) compared with the male group means ($M$ = 8.43%). Table 2 presents the means for participants by gender.

Table 2

*Descriptive Statistics of Sample Gender*

| Gender | Female<br>($N$ = 130) | Male<br>($N$ = 15) |
|---|---|---|
| Mean | 91.57% | 8.43% |

**Responses to the Measurements**

A survey tool was constructed with a total of 92 questions, including questions to collect demographics (age, gender, and program type), one descriptive question, the Palmore Facts on Aging Quiz 2, Kogan's Attitude toward Old People scale, and the Hartford Geriatric Nurse Competency tool. Each instrument was organized around four specific topics. The descriptive question reflected on employment preference post graduation based on a scale of 1 to 10. The overall mean and standard deviation for employment preference post graduation among senior nursing students enrolled in a BSN, ADN, and PN program collectively were 6.26 ($SD$ = 2.75). Palmore Facts on Aging Quiz 2 measured general knowledge about older adults (Palmore, 1977). The overall mean and standard deviation for general knowledge about older adults showed students enrolled in a BSN, ADN, and PN program were 40.74% the ($SD$ = 10.71). The

Kogan's Attitudes toward Old People scale measured attitudes toward old people (Kogan, 1961). The overall mean score and standard deviation of attitudes showed students enrolled in a BSN, ADN, and PN program were 137.50%, and the *SD* was 14.91. The Hartford Geriatric Nurse Competency tool was used to examine students' perceived competency of older adults. The overall mean and standard deviation for perceived competency about older adults showed students enrolled in a BSN, ADN, and PN program were 74.99%, and the *SD* was 10.12. Table 3 displays the results for the overall means and standard deviations of four variables: employment preference, knowledge, attitudes, and perceived competency.

Table 3

*Means and Standard Deviations on the Dependent Variables for the Programs*

| Program | Means | Standard deviations |
|---|---|---|
| Employment preference | 6.26 | 2.75 |
| Knowledge | 40.74 | 10.70 |
| Attitudes | 137.4 | 14.91 |
| Perceived competency | 74.9 | 10.12 |

**Reliability Testing**

The reliability estimates of the survey tool for the variables knowledge, attitudes, and perceived competency were consistent with the individual measurements of the instruments used in this dissertation study. The mean, standard deviation, and Cronbach's alpha reliability estimates were calculated for each subscale. The Cronbach's alpha was calculated to assess how reliably the items worked together within the sample to assess the variables of interest. The Cronbach's alpha for the Palmore Facts on Aging Quiz 2 was 0.70, indicating acceptable reliability. The Cronbach's alpha coefficient of the Kogan's Attitudes Towards Old People subscale was 0.91, and the coefficient for the perceived competency subscale was 0.94, indicating excellent reliability. The Gutman's

lambda estimates followed for confirmation, and the results showed consistency with the

reliability estimates of Cronbach's alpha as determined for each instrument subscale.

Table 4 displays the reliability estimates for each instrument subscale.

Table 4

*Reliability Estimates for Knowledge, Attitudes, and Perceived Competency*

| Measure | *M* | *SD* | Cronbach's alpha | Gutman's lambda |
|---|---|---|---|---|
| Knowledge | 40.74 | 10.71 | 0.70 | 0.75 |
| Attitudes | 137.50 | 14.91 | 0.91 | 0.91 |
| Perceived competency | 74.99 | 10.12 | 0.94 | 0.96 |

**Hypotheses and Descriptive Analysis**

A MANOVA was conducted to assess if there were significant differences in

student's knowledge, attitudes, and perceived competency based on enrollment in a BSN,

ADN, and PN program. The assumptions of multivariate normality, homogeneity of

covariance matrices, multivariate outliers, and absence of multicollinearity were assessed.

All variable combinations had correlations less than .9 in absolute value, indicating the

assumptions were met. The correlations between the dependent variables knowledge,

attitudes and perceived competency are presented in Table 5.

Table 5

*Correlations between Dependent Variables*

| Variable | 1 | 2 | 3 |
|---|---|---|---|
| 1. Knowledge | 1.0 | 0.31 | -0.04 |
| 2. Attitudes | 0.31 | 1.0 | -0.02 |
| 3. Perceived competency | -0.04 | -0.02 | 1.0 |

**Hypothesis 1**. Hypothesis 1 stated the following: There is a difference in the level

of knowledge about facts on aging among senior nursing students who are enrolled in a

BSN, ADN, and PN program that offers geriatric content in the curriculum. The

investigator posited that the independent variable nursing programs influenced the

dependent variable knowledge. To test this hypothesis, a one-way MANOVA was

performed to determine differences in knowledge about facts on aging among senior

nursing students enrolled in a BSN, ADN, and PN program. The results of the one-way

MANOVA, $F(6,280) = 2.60$, $p = .018$, $\eta^2_p = 0.05$, indicated a statistically significant

difference in the multivariate variance of the dependent variables is associated across the

three (BSN, ADN, and PN) nursing programs. Table 6 displays the MANOVA results.

Table 6
*MANOVA Results for Knowledge, Attitudes, and Perceived Competency by Program*

| Variable | Pillai trace | $F$ | $df$ | Residual $df$ | $p$ | $\eta^2_p$ |
|----------|--------------|-----|------|---------------|-----|-----------|
| Program | 0.10 | 2.60 | 6 | 280 | .018 | 0.05 |

Based on the MANOVA results in Table 6, a univariate one way ANOVA was

performed to measure knowledge and to identify statistically significant differences in

knowledge among the nursing programs. The results of the ANOVA were significant,

showing $F(2, 142) = 6.12$ and $p = .003$, indicating there were significant differences in

knowledge among senior nursing students enrolled in BSN, ADN, and PN nursing

programs. The eta squared $\eta^2_p$ was 0.08, indicating approximately 8% of the variance in

knowledge could be attributed to program type. Table 7 displays the results of ANOVA.

Table 7
*Analysis of Variance for Knowledge Total*

| Term | $SS$ | $df$ | $F$ | $p$ | $\eta^2_p$ |
|------|------|------|-----|-----|-----------|
| Program | 1309.93 | 2 | 6.12 | .003 | 0.08 |
| Residuals | 15201.63 | 142 | | | |

A post hoc Tukey pairwise comparison was applied to further examine

differences in knowledge among senior nursing students enrolled in a BSN, ADN, and

PN program. The results of the post hoc Tukey pairwise comparison showed that statistically significant differences were found between students enrolled in BSN and ADN program, $p = .044$, including PN and ADN program, $p = .004$. The null hypothesis was rejected because a statistically significant difference existed in knowledge among senior nursing students. Table 8 displays the results of the post hoc Tukey.

Table 8
*Post Hoc Tukey*

| | (I)Program | (J)Program | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence interval |
|---|---|---|---|---|---|---|
| Tukey HSD | BSN | ADN | 5.4208* | 2.23585 | .044 | .1250 to 10.7165 |
| | | PN | -1.0196 | 2.31152 | .898 | -6.4946 to 4.4553 |
| | ADN | BSN | -5.4208* | 2.23585 | .044 | -10.7165 to .1250 |
| | | PN | -6.4404* | 1.96318 | .004 | -11.0903 to -1.7905 |
| | PN | BSN | 1.0196 | 2.31152 | .898 | -4.4553 to 6.4946 |
| | | ADN | 6.4404* | 1.96318 | .004 | 1.7905 to 11.0903 |

Based on the post hoc Tukey findings, the means and standard deviations of knowledge among senior nursing students enrolled in BSN, ADN, and PN nursing programs were computed. The breakdown of participants' knowledge according to program type were (a) BSN 42.67 ($SD = 13.25$), (b) ADN 37.25 ($SD = 9.54$), and (c) PN 43.69 ($SD$ 9.08). Participants' knowledge in the BSN and PN group were greater than participants in the ADN group. Moreover, the means and standard deviation of knowledge were higher among the PN group. The means, standard deviations, and sample size for participants' knowledge based on program are displayed in Table 9.

Table 9

*Means, Standard Deviations, and Sample Size for Knowledge by Program*

| Combination | *M* | *SD* | *n* |
|---|---|---|---|
| BSN | 42.67 | 13.25 | 33 |
| ADN | 37.25 | 9.54 | 61 |
| PN | 43.69 | 9.08 | 51 |

**Hypothesis 2.** Hypothesis 2 stated the following: There is a difference in the level of attitudes toward older adults among senior nursing students who are enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum. The investigator posited that the independent variable nursing programs influenced the dependent variable attitudes. The results of the one-way MANOVA, $F(6,280) = 2.60$, $p = .018$, $\eta^2_p = 0.05$, indicated a statistically significant difference in the multivariate variance of the dependent variables is associated across the three (BSN, ADN, and PN) nursing programs. Table 6 displays the MANOVA results. Based on the MANOVA results in Table 6, a univariate one-way ANOVA was performed to measure attitudes and to identify statistically significant differences in attitudes among the nursing programs. The results of the ANOVA were not statistically significant, $F(2, 142) = 2.39$, $p = .096$, indicating no differences in attitudes toward older adults among senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum. The null hypothesis was not rejected. No post hoc comparisons were required due to the level of significance. Table 10 displays the ANOVA results of students' attitudes based on nursing program.

Table 10
*Analysis of Variance for Attitudes by Program*

| Term | *SS* | *df* | *F* | *p* | $\eta_p^2$ |
|---|---|---|---|---|---|
| Program | 1041.14 | 2 | 2.39 | .096 | 0.03 |
| Residuals | 30987.52 | 142 | | | |

In this dissertation study, Kogan's Attitudes toward Older Adults measured students' attitudes. The scores range from 34 to 204. Higher scores are related to positive attitudes and lower scores indicate negative attitudes. After the ANOVA, the means, standard deviations, and sample size based on program type were computed. The results were (a) BSN 141 (*SD* = 17.09), (b) ADN 134.21 (*SD* = 13.08), and (c) PN 137.88 (*SD* 15.09). Based on these findings, students in the BSN group attitudes were more positive toward older adults compared with students in ADN and PN group. Moreover, students in the PN group attitudes were more positive toward older adults than students in the ADN group. Table 11 displays the means, standard deviations, and sample size for participants' attitudes based on program.

Table 11
*Means, Standard Deviations, and Sample Size for Attitudes by Program*

| Combination | *M* | *SD* | *n* |
|---|---|---|---|
| BSN | 141 | 17.09 | 33 |
| ADN | 134.21 | 13.08 | 61 |
| PN | 137.88 | 15.09 | 51 |

**Hypothesis 3**.  Hypothesis 3 stated the following: There is a difference in the perceived competency about older adults among senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curricula. The investigator posited that the independent variable nursing programs influenced the dependent variable perceived competency. The results of the one-way MANOVA,

$F(6,280) = 2.60$, p = .018, $\eta^2{}_p = 0.05$, indicated a statistically significant difference in the multivariate variance of the dependent variables is associated across the three (BSN, ADN, and PN) nursing programs. Table 6 displays the MANOVA results.

Based on the MANOVA results in Table 6, a univariate one way ANOVA was performed to measure perceived competency and to identify statistically significant differences in perceived competency among the nursing programs. The results of the ANOVA were not statistically significant, $F(2, 142) = 0.77$, $p = .464$, indicating no differences in senior nursing students perceived competency based on program type. The null hypothesis was not rejected. No post hoc comparisons was required due to the level of significance. Table 12 displays the ANOVA results for perceived competency based on nursing program.

Table 12
*Analysis of Variance for Perceived Competency by Program*

| Term | SS | df | F | p | $\eta_p{}^2$ |
|------|------|-----|------|------|------|
| Program | 158.83 | 2 | 0.77 | .464 | 0.01 |
| Residuals | 14600.16 | 142 | | | |

In this dissertation study, the Hartford Geriatric Nurse Competency tool was used to measure students' perceived competency regarding older adults. The best possible score for the Hartford Geriatric Nurse Competency tool is 87 and the lowest possible score is 29. After the ANOVA, the means, standard deviations, and sample size were computed based on program type. The results were (a) BSN, 76.52 ($SD = 9.05$), (b) ADN, 75.21 ($SD = 9.94$), and (c) PN 73.75 ($SD$ 11). Based on these findings, students enrolled in BSN program perceived competency about older adults were greater than students enrolled in an ADN and PN nursing program. Moreover, students enrolled in

ADN program perceived competency about older adults were greater than students enrolled in PN programs. Table 13 displays the means, standard deviations, and sample size for participants' perceived competency about older adults based on the type of nursing program students selected for enrollment.

Table 13

*Means, Standard Deviations, and Sample Size for Perceived Competency by Program*

| Combination | *M* | *SD* | *n* |
|---|---|---|---|
| BSN | 76.52 | 9.05 | 33 |
| ADN | 75.21 | 9.94 | 61 |
| PN | 73.75 | 11 | 51 |

**Hypothesis 4.** Hypothesis 4 stated the following: There is a significant relationship between knowledge and attitudes toward older adults among senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric content in the curricula. To test this hypothesis a Pearson correlation analysis was conducted between knowledge and attitudes. Cohen's d standard was used to evaluate the strength of the relationship in which coefficients between .10 and .29 represent a small effect size, coefficients between .30 and .49 represent a moderate effect size, and coefficients above .50 indicate a large effect size (Cohen, 1988). The results showed a statistically significant positive correlation between knowledge and attitudes ($r_p = 0.31$, $p < .001$). The correlation coefficient between knowledge and attitudes was 0.31, indicating a moderate effect size. It indicates that as senior nursing students' knowledge increases, their attitude tends to increase. Therefore, the null hypothesis was rejected. Table 14 presents the results of the Pearson correlation matrix between knowledge and attitudes.

Table 14

*Pearson Correlation Matrix between Knowledge and Attitudes*

| Variable | 1 | 2 |
|---|---|---|
| 1. Knowledge | 1.00 | 0.31 |
| 2. Attitudes | 0.31 | 1.00 |

**Hypothesis 5.** Hypothesis 5 stated the following: There is a significant

relationship between attitudes and perceived competency about older adult care needs

among senior nursing students enrolled in a BSN, ADN, or PN program that offers

geriatric content in the curricula. To test this hypothesis, a Pearson correlation analysis

was conducted between attitudes and perceived competency. The results showed no

statistically significant correlation between attitudes and perceived competency ($r_p = -$

$0.02$, $p = .819$). The null hypothesis was not rejected. Table 15 presents the results of the

Pearson correlation matrix between attitudes and perceived competency.

Table 15

*Pearson Correlation Matrix between Attitudes and Perceived Competency*

| Variable | 1 | 2 |
|---|---|---|
| 1. Attitudes | 1.00 | - 0.02 |
| 2. Perceived competency | - 0.02 | 1.00 |

**Hypothesis 6.** Hypothesis 6 stated the following: There is a significant

relationship between knowledge and perceived competency about older adults among

senior nursing students enrolled in a BSN, ADN, or PN program that offers geriatric

content in the curricula. To test this hypothesis, a Pearson correlation analysis was

conducted between knowledge and perceived competency. The results showed no

statistically significant correlation between knowledge and perceived competency ($r_p = -$

$0.04$, $p = .610$). The null hypothesis was not rejected based on the $p = .610$. Table 16

presents the results of the Pearson correlation matrix between knowledge and perceived competency.

Table 16

*Pearson Correlation Matrix between Knowledge and Perceived Competency*

| Variable | 1 | 2 |
|---|---|---|
| 1. Knowledge | 1.00 | -0.04 |
| 2. Perceived competency | -0.04 | 1.00 |

**Hypothesis 7.** Hypothesis 7 stated the following: There is a significant relationship between senior nursing students' attitudes and employment preference to work with older adults post graduation. To test this hypothesis, a Pearson correlation was computed between attitudes and employment preference. The results showed no statistically significant correlation between attitudes and employment preference to work with older adults post graduation ($r_p = 0.11$, $p = .188$). The correlation coefficient between senior nursing students' attitudes and employment preference was - 0.11. The null hypothesis was not rejected based on the $p = .188$. Table 17 presents the results of the Pearson correlation matrix between attitudes and employment preference.

Table 17

*Pearson Correlation Matrix between Attitudes and Employment Preference*

| Variable | 1 | 2 |
|---|---|---|
| 1. Attitudes | 1.00 | 0.11 |
| 2. Employment preference | 0.11 | 1.00 |

**Descriptive Analysis of Employment Preference**

In this dissertation study, one descriptive question was listed on the survey questionnaire. Students were asked based on a scale of 1 to 10 (with 1 being *low* and 10 being *high*), How would you rate your employment preference to work with older adults

post graduation?  This descriptive question is related to Research Question 3 and

Hypotheses 7. Descriptive statistics of senior nursing students' responses were measured

based on frequency distributions to identify differences in employment preferences

among nursing students. For students enrolled in a BSN program, the observations of

employment preference to work with older adults post graduation showed an average of

5.79 ($SD$ = 3.24). For students enrolled in an ADN program, the observations of

employment preference to work with older adults post graduation showed an average of

5.70 ($SD$ = 2.71). For students enrolled in a PN program, the observations of employment

preference to work with older adults post graduation showed an average of 7.22 ($SD$ =

2.20).  Skewness and kurtosis were also calculated in Table 18.

Table 18
*Summary Statistics for Interval and Ratio Variables Split by Program*

| Variable | $M$ | $SD$ | $n$ | Skewness | Kurtosis |
|---|---|---|---|---|---|
| Employment preference | | | | | |
| BSN | 5.79 | 3.24 | 33 | -0.09 | -1.40 |
| ADN | 5.70 | 2.71 | 61 | -0.04 | -0.77 |
| PN | 7.22 | 2.20 | 51 | -0.34 | -0.78 |

The skewness and kurtosis values show no deviation from normality. According

to Westfall and Henning (2013), when the skewness is greater than 2 in absolute value,

the variable is considered to be asymmetrical about its mean. Additionally, when the

kurtosis is greater than or equal to 3, the variable's distribution is markedly different than

a normal distribution in its tendency to produce outliers. A univariate one way ANOVA

was performed to measure student's employment preferences and to identify statistically

significant differences among the groups. Table 19 displays the ANOVA results for

employment preferences based on a scale of (1-10).  A post hoc comparisons with

Tukey's honest significant difference test $p < .05$ between PN and BSN group and PN

and ADN group (see Table 20).

Table 19

*Analysis of Variance for Employment Preference based on a scale of (1-10)*

| Term | SS | *df* | *F* | *p* | $\eta_p^2$ |
|------|------|------|------|------|------|
| Program | 72.73 | 2 | 5.07 | .007 | 0.07 |
| Residuals | 1018.83 | 142 | | | |

Table 20

*Post-Hoc Comparisons with Tukey's Honest Significant Difference Test*

| Comparison | *M* | Lower Limit | Upper Limit | *p* |
|------|------|------|------|------|
| ADN-BSN | -0.083 | -1.454 | 1.288 | .989 |
| PN-BSN | 1.428 | 0.010 | 2.845 | .048 |
| PN-ADN | 1.511 | 0.307 | 2.715 | .010 |

Overall, the employment preference to work with older adults (based on a scale of

1-10) post graduation mean scores were higher among PNs 7.00 ($SD = 2.20$), followed by

students enrolled in BSN program 5.79 ($SD = 3.24$), and the least likely were students

enrolled in an ADN program 5.70 ($SD = 2.71$), specifically. Table 21 displays the means

and standard deviations based on students' employment preference

Table 21

*Means, Standard Deviations, and Sample Size for Employment Preference by Program*

| Combination | *M* | *SD* | *n* |
|------|------|------|------|
| BSN | 5.788 | 3.238 | 33 |
| ADN | 5.705 | 2.71 | 61 |
| PN | 7.216 | 2.203 | 51 |

**Conclusions Based on Overall Hypotheses**

The conclusion of the overall hypotheses based on senior nursing student's

enrollment in a BSN, ADN, and PN program that offers geriatric content in curricula

varied. Based on the statistically significant results, the knowledge level of senior nursing students in all three nursing programs (BSN, ADN, and PN) were limited. However, students in the PN group were more knowledgeable about facts on aging, followed by the BSN and ADN group. These findings relating to the BSN group was a concern in view of the literature that suggest BSN programs gathered and applied resources to advance gerontological nursing education through curriculum enhancements. In addition, the Hartford Foundation funded over $70 million dollars in geriatric initiatives primarily in higher education. Students in the ADN group were the least knowledgeable about facts on aging. Research regarding ADN, and PN education in gerontological nursing is limited. In the state of Florida, clinical education for students enrolled in PN programs often occurs in health care settings in which older adults receive care predominately. This factor could explain the difference in knowledge among PN students compared with BSN and ADN students. Hence, the overall knowledge level for senior nursing students enrolled in BSN, ADN, and PN programs were low but consistent with the literature that nurses and nursing students lack knowledge about older adults. While the overall level of knowledge among senior nursing students were low, the findings show a correlation between knowledge and attitudes. An increase in knowledge about older adults affect students' attitudes toward older adults. While no statistically significant relationship was found between students' attitudes and employment preference to work with older adults, the descriptive question on the survey questionnaire regarding student's employment preference was statistically significant. For example, the PN group showed a statistically higher preference to work with older adults, followed by students in BSN group, and the preference was lowest in the ADN group amid the three groups. No statistically

significant relationship was found between senior nursing students' attitudes and perceived competency, and no statistically significant relationship was found between students' knowledge and perceived competency.

**Chapter Summary**

The information presented in this chapter included the results, method of data collection, and data analysis. Data were collected using a survey that included demographic questions, one descriptive question, the Palmore Facts on Aging Quiz 2, Kogan's Attitudes toward Old People scale, and Hartford Geriatric Nurse Competency tool. Hypothesis testing was implemented for a total of seven hypotheses. A MANOVA was used to compare and test whether mean differences existed among senior nursing students enrolled in BSN, ADN, and PN programs for a combination of dependent variables (knowledge, attitudes, and perceived competency). A univariate one way ANOVA was performed to measure variables and to identify statistically significant differences in variables based on program. A post-hoc, Tukey test was used to further validate if statistically significant differences existed among variables and to demarcate differences. In addition, frequency distributions of the means and standard deviations were calculated to delineate average scores of the variables based on program type. A Pearson correlation coefficient was used to determine if a relationship existed among the variables (knowledge and attitudes; attitudes and perceived competency; knowledge and perceived competency, including attitudes and employment preference). A total of two hypotheses (1 and 4) were rejected, and Hypotheses 2, 3, 5, 6 and 7 were not rejected.

Chapter Five

Discussion and Summary

Older adults are a vulnerable population faced with multiple challenges to access, navigate, and advocate for their physical, mental, and social well-being. In addition, older adults require more nursing care than any other age specific population. Nurses entering the workforce may have limited education in gerontological nursing. Therefore, many nurses are unprepared to provide quality care to older adults. An unprepared nursing workforce could negatively influence older adults' health outcomes and their care experience. Furthermore, quality care for older adults is a worldwide priority to abate substandard care practices and to improve health outcomes.

Nurse educators play a significant role in the implementation of nursing curricula with older adult content in BSN, ADN, and PN programs. The purpose of this dissertation study was to determine differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in curricula. The literature review included numerous studies regarding nurses and nursing students' knowledge, attitudes, and employment preference to work with older adults post graduation. Limited research studies were found regarding nursing students' perceived competency to care for older adults. The majority of research studies presented in the literature were focused on BSN education, and limited studies were found regarding older adults at the ADN and PN educational level. No previous studies were identified in the literature to examine senior

nursing students' knowledge, attitudes, and perceived competency about older adults across three different levels (BSN, ADN, and PN) of pre-licensure nursing programs. The concepts of social cognitive theory (Bandura, 1986) were applied to this dissertation study to examine senior nursing students' knowledge, attitudes, and perceived competency about older adults. In social cognitive theory, the learner is viewed as being fully engaged in the learning environment. The social cognitive theory indicates people learn through personal experiences and through observing the actions of others and the outcome of those actions (Bandura, 1986). Moreover, triadic reciprocal determinism factors are used to describe behavioral, personal, and environmental factors as interacting determinants that influence each other bi-directionally to affect learning (Bandura, 1986). The social cognitive theory was applied to this dissertation study because senior nursing students enrolled in a BSN, ADN, and PN program were learners. In addition, senior nursing students learn about caring for older adult patients within a social environment, such as classrooms, simulation labs, and clinical environments. Therefore, social cognitive theory, behavioral factors, personal factors, and environmental factors may simultaneously affect students' knowledge, attitudes, and perceived competency about older adults. In this dissertation study, the social cognitive theory variables included the following: (a) behavioral factors were used to test senior nursing students' attitudes and perceived competency; (b) personal and cognitive factors were used to test knowledge; and (c) the impact of environmental factors examined nursing program selected for enrollment and learning occurring in classroom, simulation lab, and clinical setting.

A survey tool was used to collect participants' age, gender, and the type of nursing program selected for enrollment, and one descriptive question regarding students'

employment preference to work with older adults post graduation. In addition, the following three instruments were included on the survey: Palmore's Facts on Aging Quiz 2 was used to measure students' knowledge, Kogan's Attitudes toward Old People scale was used to measure students' attitudes, and the Hartford Geriatric Nurse Competency tool was used to measure students' perceived competency about older adults. This chapter presents a discussion of the results of this dissertation study and compared it to previous studies. This chapter also includes a discussion about the implications of the findings to nursing education, nursing practice, nursing research, and public policy. Limitations of the dissertation study and potential areas for future research are also discussed.

## Summary of the Findings

This research study was used to examine differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on their enrollment in a BSN, ADN, and PN program that offered geriatric content in curricula. The final sample population consisted of senior nursing students enrolled in three BSN programs ($n = 33$), one ADN ($n = 61$) and PN program ($n =12$) collectively, and one stand-alone PN program ($n = 39$) for a total of ($N = 145$) participants. Students enrolled in ADN programs were younger than students enrolled in BSN and PN programs. However, ADN and PN programs are commonly associated with adult learners seeking technical certificates and two-year degrees. BSN programs often enroll younger adult students post high school. The average age of all participates was 29.8. The gender of female students ($N = 130$) and male students ($N= 15$) are consistent with the gap in gender within the nursing profession. The following section includes a discussion of the

research results and relativity to the research questions and how the results compare to previous nursing science.

**Research Question 1**

Research Question 1 was the following: What are the knowledge, attitudes and perceived competency about older adults among senior nursing students enrolled in a BSN, ADN, and PN program that offers geriatric content in the curriculum? First, the variable (knowledge) related to the cognitive and personal factors of the theoretical framework in this dissertation study. The results showed students overall means of knowledge was low. In addition, students enrolled in BSN and PN programs demonstrated more knowledge about facts on aging compared to ADN students. The relative frequency distributions also showed more knowledge among PN students compared with BSN students. Second, the variable (attitudes) related to behavioral factors of the theoretical framework in this dissertation study. The results showed students' attitudes overall were positive. In addition and based on frequency distributions, senior nursing students in the BSN group attitudes were the most positive, followed by PN group, and last, the ADN group attitudes were less positive. Finally, the variable (perceived competency) related to behavioral factors of the theoretical framework in this dissertation study. The results demonstrated senior nursing students' overall perception of their competency were high. For example, students in the BSN group perceived their competency to care for older adults higher than the ADN group, and students in the PN group showed a lesser perception of their competency to care for older adults.

**Integration of the findings with previous literature.** Research Question 1 was integrated and compared with the literature that mirrors the previously discussed findings.

This study is the first known study to examine senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in curricula. This dissertation study begins to fill a gap in the literature about nursing students' knowledge, attitudes, and perceived competency about older adults.

In regard to knowledge, the findings in this dissertation study showed senior nursing students enrolled in BSN and PN programs knowledge were higher than students enrolled in ADN program. These findings are remarkable because the literature shows nursing programs at the BSN level engaged in several initiatives to advance nursing curricula in geriatrics. Literature regarding ADN and PN programs was scarce. Yet, the literature shows PNs provide more direct nursing care to older adults that exceeds the care provided by RNs at the BSN and ADN level (Skillman et al., 2011). To explain the gap in knowledge between PN program participants and ADN program participants, it may be plausible to assume that PN educators were inclined to prepare PN students in geriatrics because job opportunities for PNs are often in practice settings in which older adults receive care (See Appendix E).

Also, researchers strongly suggested the inclusion of geriatric content in nursing curricula consistently results in improvements in students' knowledge, skills, and attitudes about caring for older adults (Aud et al., 2006; Baumbusch et al., 2012; Potter et al., 2013; Souder et al., 2012; Tagliareni et al., 2012). The overall, means scores of knowledge was low for senior nursing students across BSN, ADN, and PN programs. These findings are consistent with Barba and Fay (2009), Gilje et al. (2007), and

Plonczynski et al. (2007) that students often graduate with inadequate knowledge regarding older adults.

The research findings of senior nursing students' attitudes in this dissertation study were overall positive and consistent with the literature. For example, Ryan and McCauley (2004) implemented a descriptive study similar to this dissertation study to determine the knowledge and attitudes of junior and senior baccalaureate nursing students toward older adults. Students ($N = 55$) were surveyed with Palmore's revised Facts on Aging Quiz I (FAQ I) and Kogan's Attitudes toward Old People Scale. The findings showed neither junior nor senior level students scored high on the (FAQ I); analysis of variance showed a significant difference in senior students' knowledge about older adults were greater compared with junior students. Also, the mean KOP score of both groups did not indicate a high positive attitude toward older adults, and there was no significant difference between the groups in this area. Several researchers indicated students were more likely to hold positive attitudes toward, perspectives on, and perceptions of older people after the application of curriculum activities (Abendroth & Graven, 2013; Algos et al., 2016; Baumbusch et al., 2012; Holroyd et al., 2009). In this dissertation study, senior nursing students' attitudes were examined in their final semester of a prelicensure nursing program that offered geriatric content in curricula.

The findings of senior nursing students' perceived competency about older adults were high and purely subjective. These findings reflect De Witt et al.'s (2013) cross-national, cross-sectional study of attitudes and perceived competence of final-year medicine, nursing, and pharmacy students related to end-of-life care and dementia in older adults. Survey findings showed nursing students were more likely to report a high

level of confidence and competence regarding the psychosocial aspects of care related to expressing empathy, encouraging goals of care, and discussing religious and spiritual concerns of older adults. Nursing students also showed a higher level of confidence and competence ratings for pain management than medical students but showed low confidence and competence with treatment options at the end of life, breaking bad news, and making hospice referrals.

**Research Question 2**

Research Question 2 was the following: Is there a significant relationship between knowledge, attitudes, and perceived competency about older adults among senior nursing students? The findings showed a significant relationship between knowledge and attitudes. No relationship was found between attitudes and perceived competency, and no relationship was found between knowledge and perceived competency. The findings of Research Question 2 are integrated and compared with the literature that mirrors the findings.

**Integration of the findings with previous literature.** The findings in this dissertation study showed a statistically significant relationship between knowledge and attitudes, which showed that as senior nursing students' knowledge increases, their attitudes tend to increase. In a cross-sectional descriptive study, Koren et al. (2008) examined the perceived learning needs and attitudes of pre-licensure undergraduate nursing students ($N = 200$) toward older adults. The findings showed students' knowledge of gerontology, and their attitudes were correlated with variables related to comfort and confidence in caring for older persons. Additional findings in this dissertation study demonstrated no relationship between students' attitudes and perceived

competency, and no relationship was found between knowledge and perceived competency about the care of older adults. However, it has been shown that students in nursing and across various health care disciplines have limited knowledge and competency about older adult care needs (Flood & Clark, 2009; Koren et al., 2008; Latimer & Thornlow, 2006).

To address the competency gap among nurses regarding pain management in older adults, Swafford et al. (2014) implemented Geriatric Pain Collaborative Web site initiative (geriatricpain.org). The initiative improved nurses' knowledge and competency regarding older adults. Scholder et al. (2004) reported on enhancing geriatric competence, knowledge, skills, and attitudes of nurses in approximately 60 national specialty-nursing associations as part of the Nurse Competence in Aging Project to improve the quality of care for older adults.  In this dissertation study, senior nursing students perceived competency about caring for older adults were overwhelmingly high and purely subjective.

**Research Question 3**

Research Question 3 was the following: Is there a significant relationship between senior nursing students' attitudes and employment preference to work with older adults post graduation? The findings showed no statistically significant relationship existed between senior nursing students' attitudes and employment preference to work with older adults post graduation. The findings of Research Question 3 are integrated and compared with the literature that mirrors the findings.

**Integration of the findings with previous literature.** The findings in this dissertation study showed no relationship between students' attitudes and employment

preference to work with older adults post graduation. Nursing students' perceptions of and attitudes toward older adults are often studied to generate information associated with their employment preferences post graduation. In a pilot study, Zembrzuski (2000) administered a survey to new associate's-degree graduates ($N = 183$) about gerontological nursing courses and job preferences. Respondents who worked in nursing homes ($n = 41$), hospitals ($n = 34$), and home care ($n = 5$) were included in the study. Results indicated that new ADN graduates preferred to work in acute care hospitals versus nursing homes. Additionally, Happell (2002) conducted a longitudinal study of undergraduate nursing students in the beginning of a nursing program ($n = 793$) and at the end of the nursing program ($n = 524$) to examine attitudes and work preferences. The findings indicated students' attitudes toward older adults improved over time. Students reported personal fears related to older adults' recovery processes, including death and dying issues. They also described working with older adults as boring, frustrating, and unpleasant. In this dissertation study, no significant relationship was found between senior nursing students' attitudes and employment preference to work with older adults post graduation.

**Descriptive Question and Employment Preference**

On the survey questionnaire, students were asked one descriptive question. The question was the following: "Based on a scale of 1 to 10 (with 1 being *low* and 10 being *high*), how would you rate your employment preference to work with older adults post graduation?" The findings of the descriptive question related to employment preference are integrated and compared with the literature that mirrors the findings**.**

**Integration of the findings with previous literature.** The findings in this dissertation study showed senior nursing students enrolled in a PN program preference to work with older adults post graduation was higher compared with BSN and ADN students. It is possible that students in the PN group response were higher among the three groups because of their understanding that employment opportunities for PNs are more prevalent in practice settings where older adults receive care. Only one study was found in the literature regarding PNs employment preference to work with older adults post graduation. Knecht et al. (2015) designed a qualitative study to understand job satisfaction and dissatisfaction to work in long-term-care among LPNs. Thirty-seven LPNs participated in focus-group sessions. The following four themes emerged regarding LPNs' job satisfaction: value, real connection, empowerment, and growth. Findings regarding LPNs' job dissatisfaction were associated with working conditions. In contrast, Koehler et al. (2016) designed a quasi-experimental pretest-posttest study over three semesters ($n = 98$, $n = 80$, and $n = 88$) with a total of 266 participants to examine the impact of a stand-alone gerontological nursing course on BSN nursing students' perceptions of working with older adults. A significant increase in students' perceptions of working with older adults was found after students completed a stand-alone course. In this dissertation study, senior nursing students were enrolled in a nursing program with courses integrated with geriatric content, which could explain the difference between the findings in this dissertation study with integrated content compared with stand-alone content regarding students' employment preference to work with older adults post graduation (Koehler et al., 2016).

**Implications of the Findings**

This study was the first study identified in the literature that examined differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offered geriatric content in curricula. The implications of the findings for nursing education, nursing practice, nursing research, and public policy are addressed in the following section.

**Implications for Nursing Education**

This dissertation study originated from nursing education and is based on recommendations from the Institute of Medicine (2010) that suggested (a) nurses and nursing students lacked essential knowledge and competency to care for older adults, (b) nurse educators play a vital role to educate nurses and nursing students about providing quality care to older adults, and (c) all health care workers and professionals licensure examinations should include information to evaluate learning outcomes in geriatrics. Therefore, educating nurses at the BSN, ADN, and PN level is important for building a strong and diverse nursing workforce. Moreover, preparing the nursing workforce to provide quality care to older adults is a national priority. Nursing education is essential to ensuring nurses and nursing students acquire the knowledge, skills, and attitudes that are required and needed to provide age-specific care to older adults. While gerontological nursing education is flourishing in BSN nursing programs, limitations were evident in the literature about ADN and PN programs. Moreover, nursing workforce statistics show a significant number of LPNs are employed in practice settings in which the greatest number of older adults receive care (see Appendix C). A limited number of nurses educated at the BSN and ADN levels can be found in similar practice settings.

The results of this dissertation study showed a lack of knowledge among all three groups of participants. More significantly, BSN and PN students' knowledge were higher than ADN students, and PN students showed more knowledge than students in the BSN group. These findings are instrumental and inform nurse educators about the effect of geriatric content in nursing curricula on students' knowledge, attitudes, and perceived competency about caring for older adults. The findings from this dissertation study also present nurse educators with evidence-based research to inform curriculum design in geriatric nursing and particularly in ADN and PN programs. Finally, the need for curriculum review for all three levels of nursing programs are highlighted by the results of this study. Nursing curriculum at each program level should contain geriatric content to ensure nursing students acquire the knowledge, skills, and attitude to provide age-specific care to older adults.

**Implications for Nursing Practice**

This dissertation study demonstrated that a wide gap exists in senior nursing students' knowledge about facts on aging. In addition, the findings showed a positive correlation between students' knowledge and attitudes towards older adults. While the goal of nursing education is to prepare nursing students for nursing practice, a knowledgeable and competent nursing workforce asserting a positive attitude toward older adults is vital to quality patient care. A continuous shift in the health care delivery system, including an increase in older and diverse patient populations, requires nurses to be prepared for the challenges that may compromise quality care in nursing practice. The findings from this dissertation study offer insights to nursing practice, the Florida Center for Nursing, workforce leaders, and key stakeholders about the extent to which nurses are

knowledgeable about older adults and the impact of knowledge on students' attitudes toward older adults. Finally, the results of this dissertation study contribute to the significance of educating nurses about older adults and particularly during new employment onboarding and professional development for continuing education units.

**Implications for Nursing Research**

This dissertation study is research based.  In addition, this dissertation study was the only study identified in the literature to examine differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in curricula. Nursing research is important to improving nursing practice, professional credibility, and an avenue to changing health policy (Tingen et al., 2009). For over 3 decades, geriatric research has gained momentum and saturated the nursing literature. A substantial body of knowledge already exists about the care of older adults, specifically at the BSN level. However, little empirical literature is informative for geriatric education at the ADN and PN educational levels. This dissertation study will be accessed by future scholars seeking information about the phenomena of interest. This dissertation study adds to nursing science and begins to close the gap in research literature about the knowledge, attitudes, and perceived competency of senior nursing students about older adults across three types of pre-licensure nursing programs (BSN, ADN, and PN). Results from this dissertation study also present a foundation for further studies to advance teaching and learning about older adults in pre-licensure nursing programs. Intervention studies are needed to determine the effects of curriculum content necessary for each program.

**Implications for Public Policy**

This dissertation study strongly affects public policy. Quality health care for older adults is a national priority for policymakers. The Centers for Medicaid and Medicare Services (2014) estimated that by 2020, 20.8% of older adults in the US would have lived in a long-term-care facility. In 1981, Congress adopted the Omnibus Budget Reconciliation Act to protect older adults from substandard care in long-term-care facilities, ensure home care benefits for older adults, and require certification and accreditation of health care facilities in which older adults receive care. The Older Americans Act was enacted in 1973 to ensure the housing, nutrition, transportation, and social needs of older adults are met. Legislative policies that directly affect older adults include the Americans with Disability Act, Adult Protective Services, and the Patient Bill of Rights. This dissertation study is aligned with the aforementioned agencies to improve older adults' outcomes. The results of this study showed a lack of knowledge among senior nursing students across three levels of nursing education (BSN, ADN, and PN). The findings from this dissertation study are informational for legislators and key stakeholders about the importance of generating resources to support geriatric nursing education across all pre-licensure nursing program types. Also, evidence that was generated from this dissertation study about knowledge, attitudes, and perceived competency is important to professional organizations that advocate for legislature that affect older adults. The findings in this dissertation study also demonstrated why continuing education about older adults should be mandated in the state of Florida.

**Limitations**

The investigator had confidence that a true experimental or quasi-experimental design, including random selection of the sample, a pretest, followed by geriatric education, and a posttest could strengthen this dissertation study. Also, the research instruments, Palmore Fact's on Aging Quiz 2 and Kogan's Attitudes toward Old People scale, are aged. However, researchers in nursing and the social sciences continue to use Palmore Fact's on Aging Quiz and Kogan's Attitudes toward Old People scale because validity and reliability are established. Newly designed instruments to test knowledge and attitudes toward older adults may lack sufficient validity and reliability. In the future, educators could consider allowing graduate and doctoral students to use new instruments to generate evidence about and to develop validity of such instruments.

The investigator anticipated more participation from senior nursing students enrolled in pre-licensure BSN programs. However, BSN program participants were the least likely to participate in this dissertation study. BSN program leaders indicated students were required to complete several surveys at the end of their nursing program and, therefore, did not consider participating in this dissertation study a priority. The findings in this dissertation study reflect students' perceived competency about the care of older adults and were purely subjective. In nursing education assessment and evaluation of students' knowledge, skills and attitudes should be measured more objectively, considering the Quality and Safety Education for Nurses (QSEN) initiatives.

An opportunity exists for future researchers to consider instruments to measure nursing students' competency about older adults more objectively. This dissertation study is limited because the investigator did not know the extent to which each nursing program

participant received geriatric content in nursing curricula. In the future, the outcomes of experimental studies could be used to provide participants with specific education about older adults and learning activities prior to examining knowledge, attitudes, and competency. Studies evaluating specific geriatric content in varied nursing programs will provide a foundation to identify best practices for geriatric content in curricula. Also, expanding the number of participants from each nursing program (BSN, ADN, and PN) could improve the generalizability of the findings.

## Chapter Summary

This study was used to examine the differences in senior nursing students' knowledge, attitudes, and perceived competency about older adults based on enrollment in a BSN, ADN, and PN program that offers geriatric content in curricula. Nursing students from three BSN programs, one ADN and PN program collectively, and one PN program participated in this dissertation study. The demographic questions, including one descriptive question regarding employment preference frequencies distributions, were calculated, followed by an ANOVA, and post hoc comparisons. The variable knowledge was measured using Palmore Facts on Aging Quiz 2, attitudes were measured with Kogan's Attitudes toward Old People scale, and perceived competency was measured with Hartford Geriatric Nurse Competency tool. Bandura's social cognitive theory and the triadic reciprocal determinism model provided the theoretical framework for this dissertation study. Results from this dissertation study showed senior nursing students enrolled in BSN, ADN, and PN programs demonstrated limited knowledge about older adults. Moreover, PN students showed more knowledge than BSN and ADN students. Students' attitudes toward older adults were overall positive, and a moderate correlation

was found between students' knowledge and attitudes. In the literature, students' attitudes

towards older adults are usually positive when nursing curricula include learning

activities about older adults. Students' scores for perceived competency about the care of

older adults were overall high, but purely subjective. These findings indicate students

believe they possess competency about caring for older adults, although their knowledge

is limited. In the literature, there are strong recommendations that nurses need

competency about the care of older adults. Hence, the literature had limited evidence

measuring nurses and nursing students' competency in geriatrics. Finally, the findings in

this dissertation study showed senior nursing students enrolled in a PN program

preference to work with older adults post graduation was higher compared with BSN and

ADN students. The investigator posited that a systematically designed, evidence-based

curriculum inclusive of geriatric content across all pre-licensure nursing programs could

influence the preparation of the nursing workforce to care for older adults. Closing the

gap in future nurses' knowledge, attitudes, perceived competency, and employment

preference to work with older adults post graduation is important to nursing education,

nursing practice, nursing research, and public policy.

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Appendix A

Institutional Review Board



**MEMORANDUM**

To: Deborah Brabham
From: Vanessa Johnson, Center Representative,
Institutional Review Board
Date: September 1, 2017
Re: IRB #: 2017-527; Title, "Senior Nursing Students' Knowledge, Attitudes, and Perceived Competency about Older Adults."

I have reviewed the above-referenced research protocol at the center level. Based on the information provided, I have determined that this study is exempt from further IRB review under **45 CFR 46.101(b) (Exempt Category 2)**. You may proceed with your study as described to the IRB. As principal investigator, you must adhere to the following requirements:

1) CONSENT: If recruitment procedures include consent forms, they must be obtained in such a manner that they are clearly understood by the subjects and the process affords subjects the opportunity to ask questions, obtain detailed answers from those directly involved in the research, and have sufficient time to consider their participation after they have been provided this information. The subjects must be given a copy of the signed consent document, and a copy must be placed in a secure file separate from de-identified participant information. Record of informed consent must be retained for a minimum of three years from the conclusion of the study.

2) ADVERSE EVENTS/UNANTICIPATED PROBLEMS: The principal investigator is required to notify the IRB chair and me (954-262-5369 and Vanessa Johnson, respectively) of any adverse reactions or unanticipated events that may develop as a result of this study. Reactions or events may include, but are not limited to, injury, depression as a result of participation in the study, life-threatening situation, death, or loss of confidentiality/anonymity of subject. Approval may be withdrawn if the problem is serious.

3) AMENDMENTS: Any changes in the study (e.g., procedures, number or types of subjects, consent forms, investigators, etc.) must be approved by the IRB prior to implementation. Please be advised that changes in a study may require further review depending on the nature of the change. Please contact me with any questions regarding amendments or changes to your study.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

Cc: Cynthia Fletcher, Vanessa Johnson

Appendix B

Institutional Review Board Amendment

NOVA SOUTHEASTERN UNIVERSITY
Institutional Review Board

To:             Deborah Brabham

                College of Nursing

From:           Nurit Sheinberg, Ed.D.

                Chair, Institutional Review Board

Date:           October 10, 2017

Subject:        IRB Exempt **Amendment Approval Memo**

TITLE:          Senior Nursing Students' Knowledge, Attitudes, and Perceived Competency about

                Older Adults.

**NSU IRB Protocol Number 2017-527**

Dear Principal Investigator,

Your submission has been reviewed and approved by the Institutional Review Board on August 28, 2017.

You may proceed with your study.

Please Note: If you receive stamped copies of consent, assent, and recruiting materials indicating approval

date, these documents must be used when recruiting and consenting or assenting participants.

Level of Review: Exempt

Type of Approval: Amendment

Exempt Review Category: Exempt Category 2

Post-Approval Monitoring: The IRB Office conducts post-approval review and monitoring of all studies

involving human participants under the purview of the NSU IRB.  The Post-Approval Monitor may

randomly select any active study for a Not-for-Cause Evaluation.

Final Report: You are required to notify the IRB Office within 30 days of the conclusion of the research

that the study has ended using the IRB Closing Report Form.

The following modifications were approved:

Addition of/change to recruitment or compensation procedure(s)

Addition of/change to study population

Translated Documents: No

Please retain this document in your IRB correspondence file.

CC:     William Smith, JD                          Vanessa Johnson
        Cynthia Fletcher

Appendix C

Approval Letter: Institution 1

**APPROVAL LETTER**

August 21, 2017

Nova Southeastern University
3301 College Avenue
Fort Lauderdale, FL 33314-7796
Subject: Site Approval Letter

To whom it may concern:

This letter acknowledges that I have received and reviewed a request by Deborah Denise

Brabham to conduct a research project entitled "*Senior Nursing Students Knowledge,*

*Attitudes, and Perceived Competency about Older Adults*" at Florida State College at

Jacksonville and I approve of this research to be conducted at our facility. When the

researcher receives approval for his/her research project from the Nova Southeastern

University's Institutional Review Board/NSU IRB, I agree to provide access for the

approved research project. If we have any concerns or need additional information, we

will contact the Nova Southeastern University's IRB at (954) 262-5369 or irb@nova.edu.

Sincerely,

Greg V. Michalski, Ph.D., PMP®
Director, Institutional Analytics & Research (IAR)
Institution 1 Institutional Review Board Human Subjects Administrator

cc: Carrie E. Henderson, Ph.D., Associate Vice President for Institutional Effectiveness & Accreditation
and Institutional Review Board Chair
ref: Institution 1 IRB2017-0114

Appendix D

Approval Letter: Institution 2

Institutional Review Board #00020200

September 19, 2017

## MEMORANDUM OF APPROVAL

| | |
|---|---|
| TO: | Ms. Deborah Brabham |
| CC: | Dr. Cynthia Fletcher |
| FROM: | Will Baxley, Research Policy Analyst |
| | On behalf of the    Institution 2    Institutional Review Board |
| RE: | IRB Decision: Senior Nursing Students' Knowledge, Attitudes, and Perceived |
| | Competency about Older Adults, NSU IRB # 2017-527 |

**The purpose of this memo is to inform you that your application to the Institutional Review Board (IRB) for Exemption of Oversight for the above referenced project has been Approved.**

Please be advised that any change in the protocol for this project must be reviewed and approved by the IRB prior to implementation of the proposed change. A Revision/Amendment Form is required for consideration of any change as well as appropriate documentation of amendment's approval by sponsoring IRB (in this case, NSU). In addition, Federal Regulations require that the Principal Investigator promptly report, in writing, any unanticipated problems or adverse events involving risks to research subjects or others. If you have questions, please contact the Office of Research and Sponsored Programs at

Appendix E

Approval Letter: Institution 3

Nova Southeastern University

3301 College Avenue

Fort Lauderdale, FL 33314-7796

Subject: Site Approval Letter

To whom it may concern:

This letter acknowledges that I have received and reviewed a request by *Deborah Brabham* to conduct a research project entitled *"Senior Nursing Students' Knowledge, Attitudes, and Perceived Competency about Older Adults"* and I approve of this research to be conducted at our facility. When the researcher receives approval for his research project from the Nova Southeastern University's Institutional Review Board/NSU IRB, I agree to provide access for the approved research project. If we have any concerns or need additional information, we will contact the Nova Southeastern University's IRB at (954) 262-5369 or irb@nova.edu.

Sincerely,

Dr Lillia Loriz, PhD, ARNP, GNP-C

Professor and Director School of Nursing

Appendix F

Approval Letter: Institution 4

Nova Southeastern University

3301 College Avenue

Fort Lauderdale, FL 33314-7796

**Subject:** Site Approval Letter

To whom it may concern:

This letter acknowledges that I have received and reviewed a request by *Deborah Brabham* to conduct a research project entitled *"Senior Nursing Students' Knowledge, Attitudes, and Perceived Competency about Older Adults"* and I approve of this research to be conducted at our facility. When the researcher receives approval for his research project from the Nova Southeastern University's Institutional Review Board/NSU IRB, I agree to provide access for the approved research project. If we have any concerns or need additional information, we will contact the Nova Southeastern University's IRB at (954) 262-5369 or irb@nova.edu.

Sincerely,

*Patricia R. Orender*

Patricia R. Orender MSN, RN
Director of ASDN and Certificate Programs

Appendix G

Recommended Baccalaureate Competencies and Curricular Guidelines:

Gerontological Nursing Competency Statements

1.  Incorporate professional attitudes, values, and expectations about physical and mental aging in the provision of patient-centered care for older adults and their families.
    *Corresponding to Essential VIII*

2.  Assess barriers for older adults in receiving, understanding, and giving of information.
    *Corresponding to Essentials IV & IX*

3.  Use valid and reliable assessment tools to guide nursing practice for older adults.
    *Corresponding to Essentials IX*

4.  Assess the living environment as it relates to functional, physical, cognitive, psychological, and social needs of older adults.
    *Corresponding to Essential IX*

5.  Intervene to assist older adults and their support network to achieve personal goals, based on the analysis of the living environment and availability of community resources.
    *Corresponding to Essential VII*

6.  Identify actual or potential mistreatment (physical, mental or financial abuse, and/or self- neglect) in older adults and refer appropriately.
    *Corresponding to Essential V*

7.  Implement strategies and use online guidelines to prevent and/or identify and manage geriatric syndromes.
    *Corresponding to Essentials IV & IX*

8.  Recognize and respect the variations of care, the increased complexity, and the increased use of healthcare resources inherent in caring for older adults.
    *Corresponding to Essentials IV & IX*

9.  Recognize the complex interaction of acute and chronic co-morbid physical and mental conditions and associated treatments common to older adults. *Corresponding to Essential IX*

10. Compare models of care that promote safe, quality physical and mental health care for older adults such as PACE, NICHE, Guided Care, Culture Change, and Transitional Care Models.
*Corresponding to Essential II*

11. Facilitate ethical, non-coercive decision making by older adults and/or families/caregivers for maintaining everyday living, receiving treatment, initiating advance directives, and implementing end-of-life care.
*Corresponding to Essential VIII*

12. Promote adherence to the evidence-based practice of providing restraint-free care (both physical and chemical restraints).
*Corresponding to Essential II*

13. Integrate leadership and communication techniques that foster discussion and reflection on the extent to which diversity (among nurses, nurse assistive personnel, therapists, physicians, and patients) has the potential to impact the care of older adults.
*Corresponding to Essential VI*

14. Facilitate safe and effective transitions across levels of care, including acute, community-based, and long-term care (e.g., home, assisted living, hospice, nursing homes) for older adults and their families.
*Corresponding to Essentials IV & IX*

15. Plan patient-centered care with consideration for mental and physical health and well-being of informal and formal caregivers of older adults.
*Corresponding to Essential IX*

16. Advocate for timely and appropriate palliative and hospice care for older adults with physical and cognitive impairments.
*Corresponding to Essentials IX*

17. Implement and monitor strategies to prevent risk and promote quality and safety (e.g., falls, medication mismanagement, pressure ulcers) in the nursing care of older adults with physical and cognitive needs.
*Corresponding to Essentials II & IV*

18. Utilize resources/programs to promote functional, physical, and mental wellness in older adults.
*Corresponding to Essential VII*

19. Integrate relevant theories and concepts included in a liberal education into the delivery of patient-centered care for older adults.
    *Corresponding to Essential VIII*

(AACN, 2010)

Appendix H

Florida Department of Education

Curriculum Framework I

Program Title:        Nursing RN
Career Cluster:       Health Science

**After successfully completing this program, the student will be able to perform the following:**

01.0    Demonstrate knowledge of the health care delivery system and health occupations.

02.0    Demonstrate the ability to communicate and use interpersonal skills effectively.

03.0    Demonstrate legal and ethical responsibilities.

04.0    Demonstrate an understanding of and apply wellness and disease concepts.

05.0    Recognize and practice safety and security procedures.

06.0    Recognize and respond to emergency situations.

07.0    Recognize and practice infection control procedures.

08.0    Demonstrate an understanding of information technology applications in healthcare.

09.0    Demonstrate employability skills.

10.0    Demonstrate knowledge of blood borne diseases, including HIV/AIDS.

11.0    Apply basic math and science skills.

12.0    Demonstrate competencies in the core components of professional nursing-professional behavior

13.0    Demonstrate competencies in the core components of professional nursing-communication

14.0    Demonstrate competencies in the core components of professional nursing-assessment

15.0    Demonstrate competencies in the core components of the professional nurse-clinical decision making

16.0    Demonstrate competencies in the core components of professional nursing-caring intervention

17.0    Demonstrate competencies in the core components of professional nursing-teaching and learning

18.0    Demonstrate competencies in the core components of professional nursing-collaboration

19.0    Demonstrate competencies in the core components of professional nursing-managing care

20.0    Demonstrate competencies in the core components of the professional nurse leadership and delegation

Appendix I

Florida Department of Education Curriculum Framework II

Program Title:     Practical Nursing (Postsecondary)
Program Type:      Career Preparatory
Career Cluster:    Health Science

| 12.0 | Provide care for geriatric patients–The student will be able to do the following: | |
|------|-------|-------|
| | 12.01 | Identify safety principles as related to the elderly. |
| | 12.02 | Describe general characteristics, particular needs, and problems of the elderly. |
| | 12.03 | Identify attitudes and living habits that promote positive mental and physical health for the elderly. |
| | 12.04 | Distinguish between fact and fallacy about the aging process. |
| | 12.05 | Identify community resources and services available to the elderly. |
| | 12.06 | Apply Reality Orientation Techniques and Validation Therapy. |
| | 12.07 | Provide and involve patients in diversional activities. |
| | 12.08 | Identify common alterations in elderly patient behavior. |
| | 12.09 | Recognize and respond appropriately to symptoms of common diseases, including dementia, depression/suicide and Alzheimer's. |
| | 12.10 | Identify common problems in drug use and abuse in the elderly. |
| | 12.11 | List community resources for individual and family health. |
| | 12.12 | Identify components of the grief process. |

Appendix J

Florida Center for Nursing

Number of Nurses Employed by Industry Reports
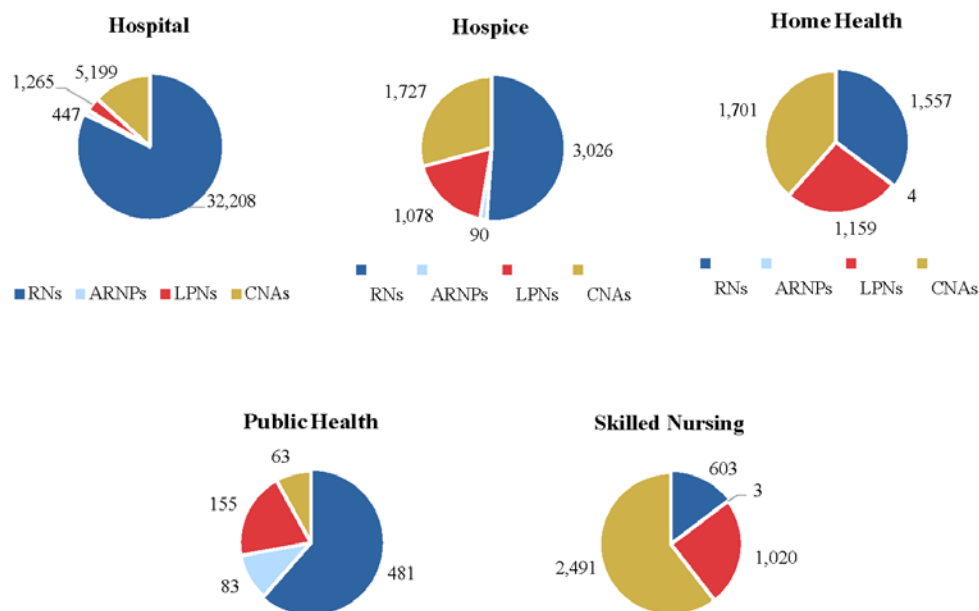


The employers who responded employed 37,875 RNs, 627 ARNPs, 4,677 LPNs and 11,181 CNAs (including home health aides). The nursing employment skill mix varies by industry (see Figure 1). Hospitals have the highest proportion of RNs at 82% while most of the employees at skilled nursing facilities are CNAs (61%). Public health departments and hospices also employ a large percentage of RNs in their staff mix; 61% and 51%, respectively. Per diem and temporary personnel are included in the total number of employees displayed in Figure 1; however, by nature of being per diem (employed by the facility but scheduled on an as needed basis) and temporary (traveling, agency and contract positions), these personnel were not accounted for in the separations, vacancies, or expected number of new positions through  2016.

Appendix K

Permission: Florida Center for Nursing

Industry Report

**From:** Mary Lou Brunell [mailto:MaryLou.Brunell@ucf.edu]

**Sent:** Tuesday, December 5, 2017 12:01 PM

**To:** Brabham, Deborah D. <d.brabham@fscj.edu>

**Subject:** RE: Seeking Permission to use FCN Data in Research Study


Yes, you may use this data as reported by the Florida Center for Nursing.

Sorry for the delay in my response.  Mary Lou


Mary Lou Brunell, MSN, RN
Executive Director – Florida Center for Nursing
Co-Lead, Florida Action Coalition
Lead, Florida Healthcare Workforce Intive
407-823-0981
MaryLou.Brunell@ucf.edu

Appendix L

National League for Nursing

Advancing Care Excellence for Seniors Framework



**Skills Lab**

**Simulation**

**Essential Nursing Actions**
Access Function and Expectations
Coordinate and Manage Care
Use Evolving Knowledge
Make Situational Decisions

**&**

**Essential Knowledge Domains**
Individualized Aging
Complexity of Care
Vulnerability During Transitions

**Classroom**

**Clinical**

**QUALITY CARE FOR OLDER ADULTS**
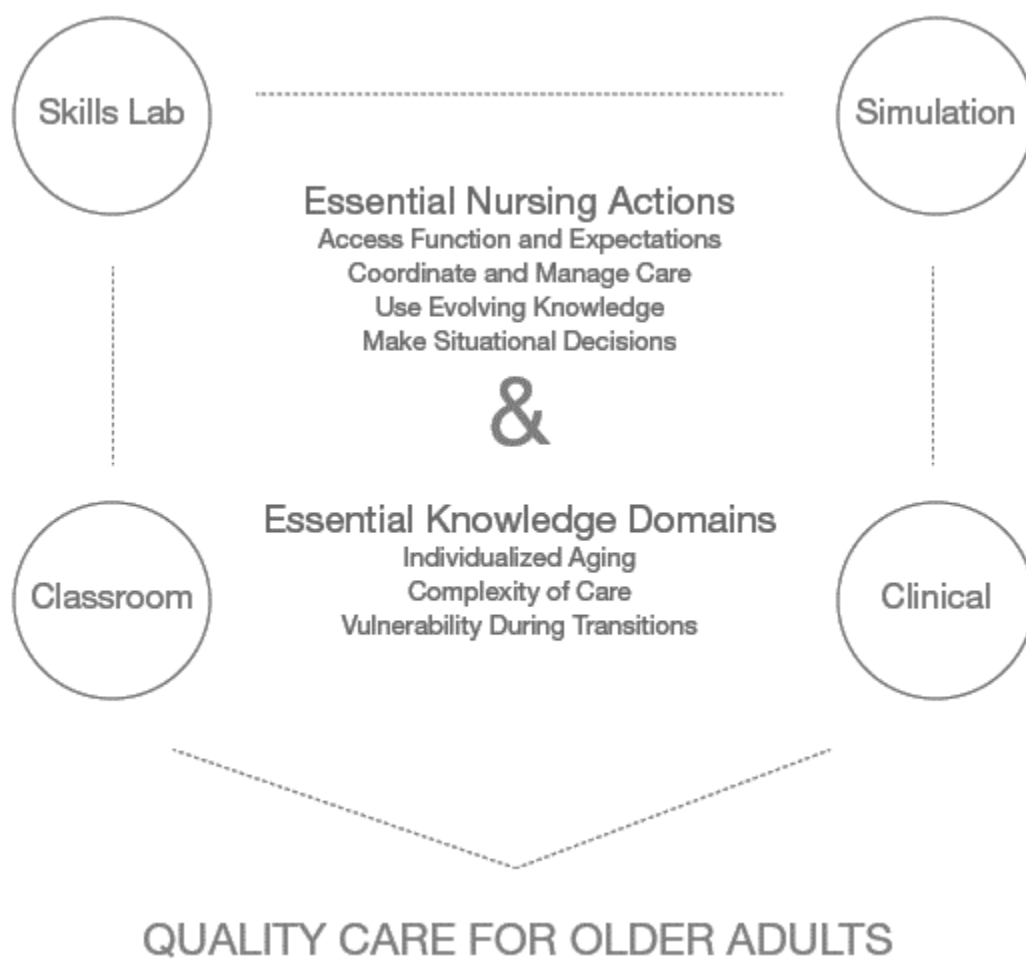
(Tagliareni et al., 2012, p. 146).

Appendix M

National League for Nursing

Permission: Advancing Care Excellence for Seniors Framework

**From:** Elaine Tagliareni [mailto:etagliareni@nln.org]

**Sent:** Monday, March 14, 2016 8:19 AM

**To:** Brabham, Deborah D. <d.brabham@fscj.edu>

**Cc:** brabham16@gmail.com; cf604@nova.edu; Amy McGuire <amcguire@nln.org>

**Subject:** RE: Need Permission: ACES Framework

Good morning Deborah

It is a pleasure to hear from you and my best wishes for your doctoral study.

The ACE.S framework is available on line and you have permission from the NLN to use the framework in

your study.

The following caveats apply:

- The ACE.S Framework will be included verbatim and not modified in any way.
- The ACE.S Framework will be used only within the dissertation; if subsequently published, you will seek permission to use the framework in the published document.
- The research will note the source of the ACE.S Framework and acknowledge that it is being used with the permission of the National League for Nursing, Washington D.C.
- The National League for nursing is the sole owner of the copyright of the ACE.S Framework.
- No fees are being charged by the NLN for permission to use the ACE.S Framework.

Warm regards,

Elaine

**Elaine Tagliareni, EdD, RN, CNE, FAAN** | Chief Program Officer | National League for Nursing |

www.nln.org | etagliareni@nln.org /202-909-2481 | Fax: 202-944-8523 | The Watergate | 2600 Virginia

Avenue NW, Washington DC 20037

**From:** Brabham, Deborah D. [mailto:d.brabham@fscj.edu]

**Sent:** Sunday, March 13, 2016 11:34 PM

**To:** Elaine Tagliareni

**Cc:** brabham16@gmail.com; cf604@nova.edu

**Subject:** Need Permission: ACES Framework


Dear Dr. Tagliareni,

My name is Deborah Brabham. I am a PhD nursing student at Nova Southeastern University located in Fort Lauderdale Florida. The reason for my contact today is to share my research interest with you, and to seek permission to use the Advancing Care Excellence for Seniors Framework.

Although the preparation of nurses and nursing students in the care of older adults is a national priority. The research continue to suggest nursing students are graduating unprepared to provide quality care to older adults. The purpose of my research study is to examine pre-licensure BSN nursing student's perceptions of their ability to provide quality care to older adults after completing a stand-alone course in geriatrics, and students who complete courses integrated with geriatric content. The concepts in the ACES framework are plausible as a conceptual model for this study. Finally, I would be amiss if I did not acknowledge our professional relationship for over many years through the NLN, and the FLN. Thank you for your invaluable contributions to nursing education to advance the healthcare of older adults. As more than 3.1 million seniors currently reside in Florida, I am very excited about embarking upon this research study to add to the science of nursing education.

Thank you,

Deborah Brabham PhDc, RN, CNE

Appendix N

Permission: Palmore Fact's on Aging Quiz

M Gmail                                               **Deborah Brabham <brabham16@gmail.com>**

## Palmore Facts on Aging Quiz - Permission Request

**Deborah Brabham** <brabham16@gmail.com>                     Sat, Apr 22, 2017 at 8:49 PM
To: erdman.palmore@duke.edu

Dear Dr. Palmore,

My name is Deborah Brabham. I am a Ph.D. nursing candidate at Nova Southeastern University in Ft. Lauderdale Florida. Thank you for your incredible contributions to the field of healthcare and social science. The purpose of this email is to seek your permission to use the Palmore Facts on Aging Quiz 2 (FAQ2) multiple-choice format.  My research study is fueled by passion and concern for older adults to receive quality healthcare, and more specifically quality nursing care. Since the literature continues to show nurses lack essential knowledge, skills, and competency about the care needs of older adults. I believe it is my duty to perform a study to test the knowledge, attitudes and perceived competency of nursing students, and to use the results to advance geriatric content in nursing programs curricula. Thank you again for your contributions to the study of older adults and aging.

Warm Regards,

Deborah Brabham PhDc, RN, CNE
Nova Southeastern University
College of Nursing

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**Erdman Palmore, Ph.D.** <erdman.palmore@duke.edu>                Sat, Apr 29, 2017 at 7:14 PM
To: Deborah Brabham <brabham16@gmail.com>

Dr. Brabham,

You have my permission. Please send me your results.

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**Deborah Brabham** <brabham16@gmail.com>                     Sat, Apr 29, 2017 at 7:28 PM
To: "Erdman Palmore, Ph.D." <erdman.palmore@duke.edu>, db1225@nova.edu, Cynthia Fletcher <cf603@nova.edu>, Cynthia Fletcher fletcher2348@yahoo.com

Appendix O

Permission: Kogan's Attitudes Toward Aging

M Gmail                                    **Deborah Brabham <brabham16@gmail.com>**

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**Nursing Student Seeking Permission**

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**Deborah Brabham** <brabham16@gmail.com>          Sun, May 28, 2017 at 12:47 PM
To: permissions@apa.org

Good Afternoon,

Please find attached a request for permission to use the Kogan attitudes toward older people (KAOP) scale. I am not able to communicate directly with Mr. Kogan, as he passed away in 2013 (obituary attached). Please let me know if any additional information is required. Your attention to this request is appreciated.
Thank you, Deborah Brabham

**3 attachments**

📄 **Nathan Kogan (1927-2013).txt**
2K

📄 **request-form for attitudestowardolderadults-KoganN1961.doc**
322K

📄 **- 5 Nathan Kogan1961Attitudes Article.pdf**
1007K

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**Thomas, Karen** <kthomas@apa.org>          Tue, May 30, 2017 at 2:56 PM
To: "brabham16@gmail.com" <brabham16@gmail.com>

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**Deborah Brabham** <brabham16@gmail.com>          Thu, Jun 22, 2017 at 10:46 AM
To: "Thomas, Karen" <kthomas@apa.org>

Hi Karen,

At your convenience. please advise on the status of reference number: **May 30, 2017.**

Thanks,

Deborah Brabham

[Quoted text hidden]

---

**Thomas, Karen** <kthomas@apa.org>          Thu, Jun 22, 2017 at 10:50 AM

To: Deborah Brabham <brabham16@gmail.com>

I was getting ready to respond to your request.  I will get back to you very soon.

Karen Thomas | Permissions Manager

**Office of Business Planning,  Publications &
Databases** |202.336.5541 | kthomas@apa.org

American Psychological Association

www.apa.org

*Advancing psychology to benefit society and improve
people's lives*

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**Thomas, Karen** <kthomas@apa.org>                    Thu, Jun 22, 2017 at 10:57 AM
To: Deborah Brabham <brabham16@gmail.com>

**File: Brabham, Deborah (author)**

Table 1, pp. 46-47, from Kogan, N. (1961). Attitudes toward old people: The development
of a scale and an examination of correlates. *The Journal of Abnormal and Social
Psychology*, *62*(1), 44-54.http://dx.doi.org/10.1037/h0048053

 Deborah,

Thank you for contacting APA.

This article as a whole is now in the public domain. You may reuse it but please include a
credit line citing the original source, and indicate that the content is in the public
domain. *The requester is responsible for obtaining permission for any individual items that
were not originally copyrighted by APA.* We appreciate your mindful concern for copyright
and permissions matters.

Regards,

Appendix P

Permission: Hartford Geriatric Nurse Competency Tool

**Deborah Brabham** <brabham16@gmail.com>                Fri, May 19, 2017 at 11:01 AM
To: NURSING.HIGN@nyu.edu, mk17@nyu.edu

Hello,
My name is Deborah Brabham. I am a Ph.D. nursing candidate at Nova Southeastern University in Ft. Lauderdale Florida. Thank you for your incredible contributions to gerontological nursing. The purpose of this email is to seek your permission to use the Hartford Geriatric Nurse competency tool to examine senior nursing students' perceptions of their competency. Melvina, I have included you in this message, because we have talked in the past, and because this is the second inquiry to the HIGN "contact" email in which I have not received a response. Please let me know if you require any additional information or who I need to contact regarding the process to obtain written permission to use the Hartford Geriatric Nurse Competency Tool. Thanks so much for your time.

Deborah Brabham PhDc, RN, CNE

**Kimberly Cheng** <kim.cheng@nyu.edu>                Tue, May 30, 2017 at 1:49 PM
Reply-To: kim.cheng@nyu.edu
To: Deborah Brabham <brabham16@gmail.com>
Cc: Yamilee J Bazile <yamilee.bazile@nyu.edu>

Hi Deborah,

Permission is hereby granted for a one-time use of the Hartford Geriatric Nurse Competency Tool to collect data from senior nursing students at Nova Southeastern University. Please do not alter the tool and cite The Hartford Institute for Geriatric Nursing at Rory Myers NYU College of Nursing on any documentation involving the tool.

Please contact us if you will be using the tool any additional times and in other ways than stated previously.

Let me know if I can be of further assistance. Thank you!
Regards,

Kim

Kimberly Cheng
The Hartford Institute for Geriatric Nursing
NYU Rory Meyers College of Nursing
433 First Avenue, 5th Floor
New York, NY 10010
Phone: (212) 992-9416
www.HIGN.org

Tue, May 30, 2017 at 2:01 PM
To: kim.cheng@nyu.edu
Cc: Yamilee J Bazile <yamilee.bazile@nyu.edu>

Kim, this is great news! Thanks so much. Please note, I am a PhD nursing student at Nova
Southeastern University. The senior nursing students in whom I will survey are enrolled at Nova
Southeastern University, Jacksonville University and Florida State College at Jacksonville. Please let
me know if this is within your specified guidelines. It would be an honor to use the tool and to share
the results with you and your staff. I also so plan to apply to attend your summer institute next year.
Deborah

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**Kimberly Cheng** <kim.cheng@nyu.edu>                                    Tue, May 30, 2017 at 2:06 PM
Reply-To: kim.cheng@nyu.edu
To: Deborah Brabham <brabham16@gmail.com>
Cc: Yamilee J Bazile <yamilee.bazile@nyu.edu>

Thanks for the clarification; yes, you may use the tool with students at Nova Southeastern University
and Florida State College. We look forward to hearing back from you on the results!

That's great news, we would be delighted to have you join us next year at our summer scholars
program. Please do not hesitate to reach out to us if you have any questions.

Have a wonderful day!
Regards,

Kim

Kimberly Cheng
The Hartford Institute for Geriatric Nursing
NYU Rory Meyers College of Nursing
433 First Avenue, 5th Floor
New York, NY  10010
Phone: (212) 992-9416
www.HIGN.org

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**Kimberly Cheng** <kim.cheng@nyu.edu>                                    Tue, May 30, 2017 at 3:57 PM
Reply-To: kim.cheng@nyu.edu
To: Deborah Brabham <brabham16@gmail.com>

Hi Deborah,

My apologies, I did not mean to leave out Jacksonville University. Thanks for letting me know!!
Regards, Kim

Kimberly Cheng
The Hartford Institute for Geriatric Nursing
NYU Rory Meyers College of Nursing
433 First Avenue, 5th Floor
New York, NY  10010
Phone: (212) 992-9416
www.HIGN.org

Appendix Q

Recruitment Email

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Dear Senior Nursing Students,

Congratulations on your upcoming graduation!
My name is Deborah Brabham. I am in the final stage of the Ph.D. program in the College of Nursing at Nova Southeastern University. My Faculty advisors are Dr. Eglantine Rigaud and Dr. Cynthia Fletcher, who is my Dissertation Chair. You received this email to consider participating in a study on senior nursing students' knowledge, attitudes and perceived competency about older adults. You are being asked to take part in this research study because you are enrolled in the final semester of a pre-licensure bachelor of science degree, associate degree, or practical nursing program that offers geriatric nursing content in the curriculum.

The knowledge of senior nursing students about older adults at the end of their nursing program is not well documented. Therefore, I am conducting this study to identify the level of knowledge of senior nursing students in three different types of nursing programs. This information will help nurse educators to determine the need for curriculum revisions in this content area.

The survey is about caring for older adults, and the completion time is approximately 20-30 minutes. This research study involves minimal risk to you. However, you may experience intimidation and some discomfort when completing the survey if you do not know the answers. I want to assure you that your name is not included on the survey and no IP addresses or any identifiable information is collected. Therefore, there is no way to connect you to the information you provide on the survey. There is no cost for participation in this study. Participation is voluntary. If you decide not to participate in this research study, it will not be held against you.

Your responses are anonymous. Information we learn from you in this research study will be handled confidentially, within the limits of the law. This data will be available to the researcher, the Institutional Review Board and other representatives of this institution, and any granting agencies. All confidential data will be kept securely on a jump drive and personal computer in the researcher's home. All data will be stored for 36 months and destroyed after that time by shredding in the researcher's home.

If you have questions, you can contact the principal investigator Deborah Brabham at (904) 891-8706 between 7a-7p or dissertation chair Dr. Cynthia Fletcher at (954) 262-1608 (9a-5p). If you have questions about the study but want to talk to someone else who is not a part of the study, you can call the Nova Southeastern University Institutional Review Board (IRB) at (954) 262-5369 or toll-free at 1-866-499-0790 or email at IRB@nova.edu.

If you have read the above information and voluntarily agree to participate in this research study, please click on the link:

https://www.surveymonkey.com/r/WJPFFF7

Thank you,
Deborah Brabham PhDc, RN, CNE

Appendix R

Dissertation Survey

**Demographics**

1.  What is your age?


2.  What is your gender?


3.  Please select one option to identify the type of nursing program that you are enrolled?


    a.  Bachelor's of Science Degree Nursing Program
    b.  Associate of Science Degree Nursing Program
    c.  Practical Nursing Certificate Program


4.  Based on a scale of 1 to 10 (with one being low and 10 being high), How would you rate your employment preference to work with older adults post graduation?

**Palmore's Facts on Aging Quiz 2**

1.  In old age, a person's height:
    a. does not change
    b. only appears to change
    c. tends to decline
    d. depends on how active one is
    e. don't know

2. As compared to younger persons, older persons (65 or over) are limited in their activity by which type of illnesses?
    a. acute illnesses (short-term)
    b. colds and flu
    c. infections
    d. chronic illnesses
    e. don't know

3. Which type of illnesses do older persons have less frequently than younger persons?

    a. chronic illnesses
    b. colds and flu
    c. infections
    d. acute illnesses
    e. don't know

4. Compared with younger persons, older persons have:

    a. more injuries in the home
    b. have about the same number of injuries in the home
    c. have less injuries in the home
    d. are twice as likely to be injured in the home
    e. don't know

5. Older workers:

    a. have higher rates of absenteeism than younger workers
    b. cannot be depended upon
    c. have about the same rates of absenteeism as younger workers
    d. have lower rates of absenteeism than younger workers
    e. don't know

6. The life expectancy of African Americans at age 65:

    a. is higher than that of whites
    b: is lower than that of whites
    c. is the same as that of whites
    d. has never been determined
    e. don't know

7. Men's life expectancy at age 65 as compared to women's life expectancy:

    a. is lower
    b. tends to be returning to what it was in the 1940s
    c. is about the same
    d. is higher
    e. don't know

8. What percent of medical expenses for the aged does Medicare pay?

    a. nearly 50 percent
    b. nearly 70 percent
    c. nearly 100 percent
    d. about 15 to 20 percent
    e. don't know
    f.

9. Social Security benefits:

    a. automatically increase with inflation
    b. are not subject to change
    c. are not adjusted to meet inflation
    d. are often cut back in times of inflation
    e. don't know

10. Supplementary Security Income (SSI):

    a. guarantees a minimum income for the needy elderly
    b. provides extra income for all the elderly
    c. supplements the income of the elderly in nursing homes
    d. pays medical expenses for the elderly
    e. don't know

11. As far as the aged getting their proportionate share of the nation's income:
    a. most of the aged live below the poverty level
    b. the aged are the poorest group in our society
    c. the aged do get their proportionate share of income
    d. the income gap between the aged and other adult groups continues to widen
    e. don't know

12. Compared to persons under 65, rates of criminal victimization among the elderly are:

    a. higher
    b. lower
    c. much the same
    d. steadily increasing
    e. don't know

13. Regarding crime and the elderly:

    a. they are more fearful of crime than are younger persons
    b. they fear crime the same as other age groups
    c. they are less fearful of crime than are younger persons
    d. most elderly persons have no fear of crime
    e. don't know

14. The most law abiding of all adult age groups are:

    a. the middle-aged
    b. persons in their 30s
    c. young couples
    d. the elderly
    e. don't know

15. Regarding the number of widows and widowers among the aged:

    a. their numbers are about equal
    b. there are nearly 5 times as many widows as widowers
    c. there are about twice as many widowers as widows
    d. the number of widows is rapidly increasing
    e. don't know

16. When it comes to voter participation rates:

    a. the aged seldom vote
    b. those ag1es 35-44 tend to have higher rates than the elderly
    c. college students have higher rates than do the elderly
    d. older people have higher rates than the rest of the population
    e. don't know

17. In reference to public office:

    a. there is no relationship between age and public office
    b. older people are seldom found in public office
    c. there are proportionately more older persons in public office
    d. there are proportionately more younger persons in public office
    e. don't know

18. The proportion of African Americans among the aged is:

    a. growing
    b. declining
    c. very small compared with other minority groups
    d. staying about the same
    e. don't know

19. Participation in voluntary organizations:

    a. usually does not decline among healthy older persons
    b. drops among healthy older persons
    c. rises among healthy older persons
    d. is highest among the youth
    e. don't know

20. The majority of old people live:

    a. alone
    b. in institutions
    c. with their spouses
    d. with their children
    e. don't know

21. The rate of poverty among the elderly

    a. is lower than among those under 65
    b. is higher than among those under 65
    c. is the same as it is for other age groups
    d. is high as a result of their having fixed incomes
    e. don't know

22. The rate of poverty among aged African Americans:

    a. is less than that of whites
    b. is about the same as that of whites
    c. is about triple that of older whites
    d. continues to increase
    e. don't know

23. Older persons who reduce their activity tend to be:

    a. happier
    b. not as happy as those who remain active
    c. more well-adjusted than those who remain active
    d. healthier
    e. don't know

24. When the last child leaves home, the majority of parents

    a. have serious problems of adjustment
    b. have higher levels of life satisfaction
    c. try to get their children to come back home
    d. suffer from the "empty nest" syndrome
    e. don't know

25. The proportion of the widowed among the aged:

    a. is gradually decreasing
    b. is rapidly increasing
    c. has remained the same in the last half century
    d. is unrelated to increasing longevity
    e. don't know

**Hartford Geriatric Nurse Competency Tool**

For the following set of questions, please mark your level of competency with the following items.

**A.. (No prior Experience)……………B... (Need to Review)……………..C..(Can Perform)**

  1.  Use communication strategies to meet patients' needs
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

  2.  Assure participation in decision making: advance directives, health care proxy, DNR, informed consent
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

3. Assess barriers (drug interactions, dementia, delirium, disease states, depression) that impact patients' understanding of information, following directions and making needs known
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

4. Demonstrate familiarity w/adaptive devices (hearing aid, listenator)
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

5. Intervene to address changes in temperature, BUN and creatinine
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

6. Assess cognitive status for delirium/dementia and/or depression. Use standardized scale to assess:  Mental Status (e.g., Mini Mental Status Examination - MMSE)
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

7. Assess cognitive status for delirium/dementia and/or depression. Use standardized scale to assess: Delirium (e.g., Confusion Assessment Method - CAM)
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

8. Assess cognitive status for delirium/dementia and/or depression. Use standardized scale to assess: Depression (e.g., Geriatric Depression Scale - GDS)
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

9. Use organization's established criteria for management of polypharmacy
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

10. Intervene to eliminate or sharply curtail adverse events associated with medications, diagnostic or therapeutic procedures, nosocomial infections or environmental stressors
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

11. Assess pain in cognitively impaired patients using valid and reliable self-report instruments and/or observations of patient behaviors (agitation, withdrawal, vocalizations, facial response/grimaces)
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

12. Intervene for the cognitively impaired when assessment is inconclusive and pain is to be expected
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

13. Assess the risk of skin breakdown using a standardized scale  (e.g., Braden Scale)
A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

14. Use organization's established criteria to implement appropriate bathing, choice of skin products, and positioning

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

15. Demonstrates within care plan appropriate intervention to promote function in response to change in activities of daily living(ADL) and instrumental activities of daily living(IADL)

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

16. Use assistive devices and suggest or initiate referral to appropriate therapies (OT, PT, ST) to promote and maintain optimal function

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

17. Identify and refer to appropriate clinician recent onset of urinary incontinence (UI)

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

18. Document rational for use of indwelling catheters other than in specified clinical situations(e.g., stage III/IV pressure ulcers, monitored acutely ill patients, urinary retention not  manageable by other means)

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

19.  Use organization's established criteria to identify high risk patients for nutritional/fluid deficit

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

20. Intervene to address barriers to nutritional/fluid adequacy (e.g., difficulty with chewing & swallowing, alterations in hunger and thirst, inability to self-feed & capacity of others to feed)

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

21. Use a valid and reliable measure of fall risk assessment

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

22. Use the organization's established falls prevention protocol

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

23.  Document discussion of the use of a physical restraint( Posey, mitts, chairs with fixed trays, sheets, side rails)

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

24. Document behavior of patient who is physically restrained

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

25. Intervene to eliminate or sharply curtail the use of physical restraints (e.g. alternate strategies to prevent falls, to prevent treatment interference, and to manage agitated and/or combative behavior)

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

26.  Use organization's established criteria to identify elder abuse

A..(No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

27. Transmit timely and complete information to patient/family, home care/ skilled nursing facility (e.g. minimal data elements include diagnoses and medications, including dose & last dose taken)

No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

28. Provide patient education materials that are legible, printed clearly and at appropriate level of medical literacy

No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

29. Refer for evaluation of the need for special resources for transition to home (e.g. Meals on Wheels, adaptive devices, etc.)
No prior Experience)……………B..(Need to Review)……………..C..(Can Perform)

**Kogan's Attitudes Toward Old People Scale**

Directions: Circle the LETTER on the scale following each statement, according to the following key, that is closest to your opinion of old people.

**Key:**

| Strongly Disagree | Slightly Disagree | Disagree | Agree | Slightly Agree | Strongly Agree |
|---|---|---|---|---|---|
| A | B | C | D | E | F . |

1. In order to maintain a nice residential neighborhood, it would be best if too many old people did not live in it.
     A………………B…………………C………………D…………………E…………………F

2. It would probably be better if most people lived in residential units that also housed younger people.
     A………………B…………………C………………D…………………E…………………F

3. Most old people make excessive demands for love and reassurance than anyone else.
     A………………B…………………C………………D…………………E…………………F

4. Most old people seem quite clean and neat in their personal appearance.
     A………………B…………………C………………D…………………E…………………F

5. Most old people would prefer to continue working just as long as they possibly can rather than be dependent on anybody.

A..................B......................C..................D...................E.......................F

6. Most old people are irritable, grouchy, and unpleasant.

A..................B......................C..................D...................E.......................F

7. Most old people tend to let their homes become shabby and unattractive.

A..................B......................C..................D...................E.......................F

8. People grow wiser with the coming of old age.

A..................B......................C..................D...................E.......................F

9. Most old people are very relaxing to be with.

A..................B......................C.................. D..................E.......................F

10. Most old people can generally be counted on to maintain a clean, attractive home.

A..................B......................C..................D...............E.......................F

11. There are a few exceptions, but in general most old people are pretty much alike.

A..................B......................C..................D...................E.......................F

12. Most old people bore others by their insistence on talking "about the good old days".

A..................B......................C..................D...................E.......................F

13. Most old people are constantly complaining about the behavior of the younger generation.

A..................B......................C..................D...................E.......................F

14. Most old people are cheerful, agreeable, and good humored.

A..................B......................C..................D...................E.......................F

15. If old people expect to be liked, their first step is to try to get rid of their irritating faults.

A..................B......................C..................D...................E.......................F

16. One of the most interesting and entertaining qualities of most old people is their accounts of their past experiences.

A..................B......................C..................D...................E.......................F

17. Most old people need no more love and reassurance than anyone else.

A..................B......................C..................D...................E.......................F

18. One seldom hears old people complaining about the behavior of the younger generation.

A...................B........................C...................D....................E........................F

19. There is something different about most old people; it's hard to find out what makes them tick.

A...................B........................C...................D....................E........................F

20. Old people should have more power in business and politics.

A...................B........................C...................D....................E........................F

21. Most old people tend to keep to themselves and give advice only when asked.

A...................B........................C...................D....................E........................F

22. You can count on finding a nice residential neighborhood when there is a sizeable number of old people living in it.

A...................B........................C...................D....................E........................F

23. It is evident that most old people are very different from one another.

A...................B........................C...................D....................E........................F

24. Most old people get set in their ways and are unable to change.

A...................B........................C...................D....................E........................F

25. Most old people would prefer to quit work as soon as pensions or their children can support them.

A...................B........................C...................D....................E........................F

26. When you think about it, old people have the same faults as anybody else.

A...................B........................C...................D....................E........................F

27. It would probably be better if most old people lived in residential units with people their own age.

A...................B........................C...................D....................E........................F

28. Most old people should be more concerned with their personal appearance; they're too untidy.

A...................B........................C...................D....................E........................F

29. It is foolish to claim that wisdom comes with old age.

A...................B........................C...................D....................E........................F

30. Most old people are capable of new adjustments when the situation demands it.

A..................B.......................C..................D..................E......................F

31. Old people have too much power in business and politics.
A..................B.......................C..................D..................E......................F

32. Most old people make one feel ill at ease.
A..................B.......................C..................D..................E......................F

33. Most old people spend too much time prying into the affairs of others and giving un-sought advice.

A..................B.......................C..................D..................E......................F

34. Most old people are really no different from anybody else: they're as easy to understand as younger people.

A..................B.......................C..................D..................E......................F

Thank you for completing this survey.

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