

2-27-2018

The Influence of Age, Employment, and Ethnicity on Associate Degree Nursing Students' Perception of Instructor Caring

Pamela Fifer

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Recommended Citation

Fifer, Pamela, "The Influence of Age, Employment, and Ethnicity on Associate Degree Nursing Students' Perception of Instructor Caring" (2018). *Doctor of Education (EdD)*. 107.
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Running head: ADN STUDENTS' PERCEPTIONS OF INSTRUCTOR CARING

THE INFLUENCE OF AGE, EMPLOYMENT, AND ETHNICITY ON ASSOCIATE DEGREE
NURSING STUDENTS' PERCEPTIONS OF INSTRUCTOR CARING

by

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Presented to the Faculty of the
Doctor of Educational Leadership Department

George Fox University

in partial fulfillment for the degree of

DOCTOR OF EDUCATION

February 27, 2018



GEORGE FOX
UNIVERSITY

COLLEGE OF EDUCATION

“THE INFLUENCE OF AGE, EMPLOYMENT, AND ETHNICITY ON ASSOCIATE DEGREE NURSING STUDENTS’ PERCEPTIONS OF INSTRUCTOR CARING,” a Doctoral research project prepared by PAMELA FIFER in partial fulfillment of the requirements for the Doctor of Education degree in Educational Leadership.

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Abstract

The aim of this study was to explore ADN students' perceptions of instructor caring, including the relationships between age, employment, and race/ethnicity, utilizing the Nursing Students' Perception of Instructor Caring (NSPIC) instrument. Understanding some of the unique needs and what behaviors demonstrate caring to students can help nurse educators develop and utilize more of these caring behaviors in various interactions with students. Standard multiple regression, multiple correlations, and one open-ended question were used to analyze the data. Age, employment status, and race were not statistically significant predictors of students' perceptions of instructor caring for any of the scales. Each of the five scales had moderate to high levels of internal consistency. Inter-item correlations demonstrated most items were moderately to highly correlated within each scale. Common themes regarding behaviors that students wanted changed or improved included feedback, communication, availability, support, respect, and understanding. Implications for nurse educators and administrators include increasing the awareness of students' perceptions of instructor caring behaviors and incorporation of quality teaching practices that reflect these behaviors. This can help build the instructor-student relationship, help students develop their caring efficacy, and potentially help students succeed in nursing school and in the profession.

Key words: nursing student, perceptions, instructor caring

Acknowledgements

Earning my doctoral degree would not have been possible without the support of so many people. These few words of acknowledgement cannot begin to describe my appreciation for each of you.

First, I want to thank God for providing this amazing life and journey. His mercies, trials, and blessings throughout my life have led me to this point. He has surrounded me with love and support through so many people. To God be the glory.

David – You are not only my husband, you are my best friend. Your love, encouragement, and understanding have been constant. You have sacrificed a great deal to make this a reality. You prepared meals, folded laundry, shopped for groceries, edited countless papers, and much more so that I could do homework, study, and write. You have taught me so much about love, the precious gift of time, and enjoying the simple moments God gives us. Thank you for your patience and total commitment to me and this endeavor. It is a blessing to be your wife. I love you.

Dad and Mom – A daughter couldn't ask for better parents. You have been models of Christ throughout my life, serving others, loving unconditionally, providing generously to others, and demonstrating mercy. Your love, encouragement, and prayers throughout this journey were enormous blessings. The meals you made, the "sanctuary time", and your willingness to listen to me share about my dissertation again and again are just a few examples of your overwhelming support.

Brenda and Keri – You are fabulous sisters. How many sisters would want to read their sister's dissertation, really? Your prayers, encouragement, humor, and honest pleasure in asking about the process have been tremendous. Our weekly phone calls are such a blessing.

Denny, Lynda, Rick, and Dennette – You four are the greatest friends and accountability group. We have been through so much together. It is a blessing that we get to do life with you, sharing the joys and sorrows along the way. Thanks for being such an integral part of this particular journey.

My Lakepoint Church family – Your encouraging words, prayers, and understanding when I had to say no to church events are greatly appreciated. I am becoming a better person as I learn from the weekly messages, the wisdom of those in our church, and opportunities to serve others.

The George Fox EdD faculty and staff – From the interview process, ice cream during the first summer intensive, to conversations about faith and family over coffee, and supportive notes and cards in the mail, you all demonstrate caring exceedingly well. Examples such as allowing access to a course syllabus early, praying with the class during difficult, emotionally draining discussions, or providing encouragement and tips to continue moving forward on this journey all demonstrate the care and support you have for your students. Dr. Dane Joseph, I can't begin to thank you enough for your support and assistance throughout the dissertation process. Your feedback, insights, encouragement, and expertise have been invaluable. You demonstrate caring behaviors from all five of the NSPIC scales! I am also grateful to Dr. Karen Buchanan and Dr. Scot Headley for their service on my dissertation committee. My committee has helped make me a better scholar with their wisdom, feedback, and support.

Nursing students – It is because of you that I teach and lead in nursing education. I pray I serve you well, and help others to do the same. You are the future of nursing, and will care for patients during times of illness, crisis, and varying levels of wellness. May we care for you, so you may care for others.

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Chapter One

During the past five years, this nurse educator has heard students comment on a variety of negative instructor behaviors. These comments included examples of instructor incivility, student perceptions of uncaring and unprofessional instructor behaviors, and lack of instructor support. To nurse educators, these comments should be disturbing. Caring is one of the core values of nursing (Labrague, McEnroe-Petitte, Papathanasiou, Edet, & Arulappan, 2015; Landers, Weathers, McCarthy, & Fitzpatrick, 2014; Li, et al., 2013; Mlinar, 2010; Tanner, 1990; Wade & Kasper, 2006), and as such nursing instructors should model and teach caring to their students. With the increased technological competencies required in today's healthcare environment, there is concern that caring may be minimized or lost (Grobbe & Rowe, 2014).

As health care has become more complex and community focused, having caring nurses is even more important to meet the holistic needs of patients (Brewer & Watson, 2015). To that end, improving nursing students' caring abilities becomes essential for student success, high quality nursing practice, and positive patient outcomes (Ma, Li, Zhu, Bai, & Song, 2013). If nursing instructors are seen as uncaring, how will the students learn and demonstrate caring behaviors? These questions led to this study about students' perceptions of nursing instructor caring.

Rationale for the Study

Pre-licensure nursing education is rigorous and challenging in order to meet the demands of the profession. With high expectations of students and the need to maintain patient safety and quality, instructors can be perceived as rigid and uncaring (Magnussen & Amundson, 2003). Multiple examples of instructor incivility in nursing add to the perception of instructors as

uncaring (Clark, 2008). Students partially learn caring by experiencing caring interactions with instructors (Labrague, et al., 2016; Tanner, 1990; Wade & Kasper, 2006). Demonstrations of caring behaviors have been identified as important influences in the student-instructor relationship (Christiansen, O'Brien, Kirton, Zubairu, & Bray, 2015; Del Prato, Bankert, Grust, & Joseph, 2011; Hanson & Smith, 1996; Levett-Jones, Lathlean, Higgins, & McMillan, 2009; Li et al., 2013; Wade & Kasper, 2006). Additionally, studies indicate students' abilities to practice and experience a collaborative, supportive instructor-student relationship helps to develop socialization in the role of a nurse (Ware, 2008; Watson, 1988).

In order to understand the actualization of caring within nursing education, it is important to look at instructor behaviors for examples of caring. When the atmosphere of nursing education is perceived as caring, students can develop a way of being that reflects these behaviors and is professional (Labrague, et al., 2016; Li et al., 2013; Price, 2008; Tang, Chou, & Chiang, 2005; Valiee, Moridi, Khaledi, & Garibi, 2016). Nursing students must understand what caring is, how it is demonstrated, and be able to provide these caring behaviors to their patients. Instructors help socialize students into the profession of nursing, which includes role modeling caring behaviors (Wade & Kasper, 2006; Zamanzadeh, Shohani, & Palmeh, 2015).

Not only do nursing instructors have the responsibility to teach caring concepts and behaviors to their students, they also should model caring as a method of support and encouragement. Without adequate support and care, it may be difficult for nursing students to be successful. Studies suggest that nursing instructor support has a positive influence on student success (Ahn & Choi, 2015; Clark, 2008; Del Prato, 2013; Rowbotham & Owen, 2015; Shelton, 2003). Instructors may believe they demonstrate caring consistently, but would their students agree? Some students "come to equate caring with coercion, and good teaching with hard work

and control..., but they do not themselves feel cared for” (Noddings, 2005, para. 3). It is valuable for nurse educators to evaluate how their caring is perceived as part of their teaching. Nursing instructors are role models to the nursing students who will be future nurses. These caring interactions between students and instructors reflect the nurse-patient relationship (Watson, 1988).

Purpose of the Study

Although there is a great deal of research on caring in nursing education, there is minimal research on students' perceptions of instructor caring, and limited research regarding associate degree nursing (ADN) students and caring. Associate degree nursing programs make up 58% of pre-licensure programs in the United States (National League for Nursing, 2014). The aim of this study was to explore ADN students' perceptions of instructor caring, including the relationships between age, employment, and race/ethnicity, to provide insights into the dynamics of the student-instructor relationship regarding caring behaviors. Students in ADN programs are often non-traditional students who are older, must work while in the program, are often more ethnically diverse, and may have children (Eckel & King, 2004). This potential increase in responsibilities and commitments may lead these students to desire more support and care from instructors. Non-traditional students may also view demonstrations of caring differently than more traditional students who may have fewer outside responsibilities. Viewing students holistically, instructors should consider the personal, academic, psychosocial, and cultural aspects of their students. Each student brings individual experiences, responsibilities, and perspectives that can influence how they display caring or view an instructor's caring behaviors.

Understanding some of the unique needs and what behaviors demonstrate caring to students can help nurse educators develop and utilize more of these caring behaviors in various interactions with students. Nurse educators can also better communicate with students regarding the various expressive and technical aspects of caring. This can help build the instructor-student relationship, help students develop their caring efficacy, and potentially help students succeed in nursing school and in the profession. Incorporating the variables of age, employment, and race/ethnicity will allow the researcher to examine three of the factors that may have an influence on students' perceptions of instructor caring.

Research Questions

1. What is the relationship between nursing student age, employment status, and race/ethnicity with nursing students' perceptions of instructor caring?
 - 1a. Is there a statistically significant difference in nursing students' perceptions of instructor caring by age?
 - 1b. Is there a statistically significant difference in nursing students' perceptions of instructor caring by employment category?
 - 1c. Is there a statistically significant difference in nursing students' perceptions of instructor caring by race/ethnicity?
2. To what extent are the factors on the NSPIC instrument for students' perceptions of instructor caring related?
3. What (if they could) would nursing students change about their nursing instructors' caring behaviors?

Significance of the Study

This study may advance nursing education by addressing a gap in the research with regards to understanding ADN students' perceptions of instructor caring, and the relationships between age, employment, and race/ethnicity. Quantitative results regarding caring perceptions, and variables related to them, will create baseline data regarding ADN students that can be further studied. This could include research with larger sample sizes, stratified samples of various levels within ADN programs, and relationships between other variables. These perspectives may assist nurse educators to appreciate students' views of caring and compare them with their own perceptions. Gaining awareness of more non-traditional students' perceptions of instructor caring may help instructors expand their use and demonstration of caring behaviors that are meaningful to a variety of students.

As instructors consider the individual needs, responsibilities, and experiences of students, further strategies can be developed to teach and demonstrate key caring behaviors that are considered supportive, and help role-model a core value of the profession. Understanding today's nursing students' perceptions of instructor caring can open a dialogue about caring that may influence administrators of nursing programs, nursing instructors, students, and eventually patient care. Examples of how the research findings may be beneficial include incorporating specific caring behaviors into assignments and course outcomes, including instructor caring behaviors on course evaluations, and creating professional development modules that include students' perceptions of caring and uncaring behaviors. Additional examples include creating orientation modules related to tools and strategies that better demonstrate caring, and increasing awareness of cultural humility.

Definition of Terms

Caring: An ethical ideal that is a context-specific interpersonal process which includes competence, interpersonal sensitivity, and intimate relationships (Finfgeld-Connet, 2007; Watson, 1991).

Incivility: Speech or behaviors that are considered rude or discourteous that violate the norms of mutual respect, and cause conflict or stress (Clark, 2008).

Non-traditional student: College students who possess one or more of the following characteristics: 25 years of age or older, married, did not earn a traditional high school diploma, enrolled part-time, work full-time, or have children (Eckel & King, 2004; Jeffreys, 2015).

Nursing students' perception of instructor caring: "Nursing students' awareness of a mutual and reciprocal connection between the self and the instructor that enables them to search for meaning and wholeness and grow as caring professional nurses" (Wade & Kasper, 2006, p. 164).

Pre-licensure nursing programs: Any nursing program that trains students to become licensed registered nurses. In the United States these programs include associate degree, diploma, and baccalaureate degree programs. Upon graduating from this type of program, the graduate is eligible to take the National Council Licensure Examination-RN (NCLEX-RN) to become a registered nurse.

Self-efficacy: One's own judgment of one's capability to perform a given action to meet given situational demands (Zulkosky, 2009). It influences how one feels, thinks, behaves, and is motivated (Bandura, 1997).

Limitations and Delimitations

This study had several limitations and delimitations. The first limitation was that caring is a difficult concept to define and conceptualize. Caring can be viewed as a way of being, an affect, an interpersonal interaction, a subjective experience, and/or a therapeutic intervention (Watson, 2008). This researcher chose to develop a definition of caring using components from Watson's caring theory (1991), and a meta-synthesis of caring research in nursing (Finfgeld-Connet, 2007). Measuring caring has often been a qualitative process, however there are valid and reliable tools to help measure caring more quantitatively. Instruments have been developed that operationalize caring and then participants responded to the survey questions based on their perceptions of their own experiences. This still involves an element of subjectivity, but that too is a part of caring.

A second limitation was it is reasonable that multiple factors may influence a student's perception of instructor caring. For example, student factors may include age, marital status, care giving responsibilities, employment status, race/ethnicity, health status, anxiety level, and prior negative or positive experiences with the instructor.

A third limitation was that students complete the survey instrument based on their own experiences. Given the recency effect described in the literature of psychology, these experiences may be strongly influenced by the teaching style and behaviors of the instructor the participants have last experienced before completing the survey. Although subjectivity is necessary at some level to understand caring, this could lead a student to rank an instructor's caring higher or lower based on one extremely negative or positive interaction that taints the student's overall perception.

A fourth limitation was the survey instrument. This researcher chose to use the Nursing Students' Perceptions of Instructor Caring (NSPIC) instrument developed by Wade and Kasper (2006). Although there are several tools that measure caring from the nurse or patient perspective, the NSPIC is specifically designed to collect students' perceptions of instructor caring. The initial factor analysis was done with 131 students. According to Osborne and Fitzpatrick (2012), the minimum number of participants to obtain reliable results should be 10 to 15 participants per variable. For a 31-item instrument, the minimum sample size for a reliable factor analysis would be approximately 310. Therefore, the small sample used by Wade and Kasper limits reliability of the factor structure.

However, Li, et al. (2013) conducted principal component analysis with varimax rotation with the Chinese NSPIC version. The same five factors were identified, accounting for 62.58% of the variance, and all items loaded between 0.410 and 0.829, indicating good fit and unique variances. The factor analysis for this study was valid and reliable because the sample was 358 students. However, three of the instrument items shifted between factors compared to the original NSPIC. The sample size of this dissertation research was not large enough to perform a reliable exploratory factor analysis to validate the original NSPIC five factor structure. Thus, there were limitations to the overall inferences that can be made. Additionally, the NSPIC is a survey, and therefore data is limited to choices on the scale. A qualitative design might capture more specific themes, but lacks the measurable aspect that the quantitative approach brings to generalize findings to the population.

There are also several delimitations of the study. First, surveying fourth-term students makes the findings less generalizable. However, this researcher chose to survey students from five of the largest nursing programs in the state in hopes of having a large enough sample size.

Since this type of study has not been conducted before, the data obtained and findings may be conceptually valuable for all ADN instructors in understanding what caring behaviors students perceive as important.

A second delimitation was the choice of independent variables. This researcher chose age, employment (working; not working), and race/ethnicity. The students surveyed should have a diversity of ages and race/ethnicity since ADN students tend to be more non-traditional (Eckel & King, 2004). These students are typically 25 years of age and older, often first generation college students, and tend to include more minority students (Eckel & King, 2004). Additionally, non-traditional students often have to work while going to school. Gender was not chosen as a variable because of the limited number of male students enrolled in nursing programs. Approximately 15 percent of pre-licensure students are male (National League of Nursing, 2014). The small number of male nursing students within any given research sample limits findings related to gender.

A third delimitation was that only peer-reviewed articles relating to pre-licensure nursing education programs were included. This was to maintain a focus on caring within nursing education, and perceptions of students prior to any professional nursing experience.

Chapter Two

Literature Review

In order to understand how nursing students learn to care, nursing instructors need insight into how instructor-student interactions influence students' perceptions of caring and students' ability to care (Labrague, et al., 2015; Li, et al., 2013; Wade & Kasper, 2006). Many factors are involved in developing nursing student caring self-efficacy. Student perception of instructor caring behaviors is one factor that has been studied and can be further examined (Beck, 1991; Cook, 2005; Hanson & Smith, 1996; Hughes, 1992; Labrague, et al., 2015; Li, et al., 2013; Wade & Kasper, 2006). Knowing the behaviors students view as caring can help instructors incorporate these behaviors into teaching and their interactions with students. For this literature review the EBSCOhost search engine was used with the key words 'student', and 'perceptions' or 'attitudes' or 'opinion', and 'nursing', and 'faculty' or 'instructor', and 'caring' with a date range of 1990 – 2017. The search resulted in 328 articles. This researcher wanted literature that focused on nursing students' perceptions of caring, not patients' perceptions. Only peer-reviewed articles relating to pre-licensure nursing education programs were included to maintain a focus on students' perceptions of caring prior to any professional nursing experience. Additionally, the key words 'self-efficacy' or 'caring efficacy' or 'caring self-efficacy', and 'nursing', and 'student' were also searched to incorporate literature related to caring efficacy of nursing students. References were also located by reviewing reference lists of relevant articles and book chapters.

This literature review includes a summary of caring as it relates to nursing, and an overview of Watson's Theory of Transpersonal Caring, which is the caring theory used in this research. This review incorporates current research on students' perceptions of caring in nursing

education. Specifically nursing students' views of caring, nursing students' caring self-efficacy, effects of instructor caring and support on nursing students' success and socialization to the profession of nursing, and nursing students' perceptions of instructor caring behaviors are reviewed. The purpose of this review is to synthesize the research to highlight the similarities of caring behaviors in various aspects of nursing education, and to demonstrate the importance of understanding nursing students' perceptions of nursing instructor caring. Additionally, research regarding age and students' perceptions of instruction, as well as the relationships of employment status and ethnicity to academic achievement in nursing education are included to better understand the independent variables in this study.

Caring

Caring is often referred to as the essence of nursing (Dillon & Stines, 1996; Loke, Lee, Lee, & Noor, 2015; Sadler, 2003). It is widely accepted among nurses as an essential element of nursing (Khademian & Vizeshfar, 2008; Labrague, et al., 2015; Mlinar, 2010; Wade & Kasper, 2006). It is a context-specific interpersonal process that includes competence, interpersonal sensitivity, and intimate relationships (Finfgeld-Connett, 2007; Watson, 1991). Caring includes empathy and connection with people (Fahrenwald, et al., 2005). It consists of instrumental and expressive components based on actions (Mlinar, 2010). The instrumental component relates to technical and physical aspects of care. Expressive caring consists of meeting patients' emotional and psychosocial needs. This includes treating patients as unique individuals and relating to them on a human level (Mlinar, 2010).

Watson's Theory of Transpersonal Caring

Watson's caring theory helps nurses to return to the deep roots and values of the profession; moving from nursing as just a job to nursing as a noble, gratifying profession (Cara, 2003). According to Jean Watson (1991), the goal of nursing revolves around helping people gain a higher degree of harmony within the mind, body, and soul. This goal is achieved through caring transactions. Watson's caring theory allows the nurse to provide compassion, promote healing and dignity, and expand the nurse's own actualization. Originally developed in 1979, major elements of Watson's (1991) theory are the carative factors, the transpersonal caring relationship, and the caring occasion.

Watson uses the term carative to contrast medicine's curative factors. The ten carative factors are a guide for nursing. A brief synopsis of the ten carative factors (Watson, 1991) are:

1. The formation of a humanistic-altruistic system of values. This includes practicing acts of kindness.
2. The installation of faith-hope. This includes being authentically present and honoring others.
3. The cultivation of sensitivity to one's self and to others. This implies being sensitive to self and others by understanding individual beliefs and practices.
4. The development of a helping-trusting, authentic relationship.
5. The promotion and acceptance of the expression of positive and negative feelings. This includes authentic and active listening, as well as encouraging reflection.
6. The systematic use of the scientific problem-solving method for decision-making. This includes utilizing critical thinking, along with the art and science of nursing, and one's own experiences in the plan of care for others.

7. The promotion of interpersonal teaching-learning. This is a shared, collaborative experience that incorporates individual needs and learning styles.
8. The provision for a supportive, protective and/or corrective mental, physical, socio-cultural, and spiritual environment. This involves creating a healing environment on all levels.
9. Assistance with the gratification of human needs, including physical, emotional, and spiritual needs.
10. The allowance for existential-phenomenological forces. This includes slowing down and allowing space for unexpected wonder and miracles to happen.

As Watson's theory has evolved, she introduced the clinical *caritas* processes in place of the ten carative factors. Her emphasis was to develop a greater spiritual dimension in each carative factor through the *caritas* processes (Watson, 2001). For the purpose of this study, the carative factors will be used to remain consistent with the terminology used in the caring instruments selected. Additionally, Watson suggested that the carative factors provided a more stable framework for instrument development (Wade & Kasper, 2006). These carative factors provide a structure for understanding nursing education and practice.

Watson (1991) characterizes the transpersonal caring relationship as holistic, and a special type of human care that depends on multiple factors. These include a moral commitment to protect and enhance human dignity, respect for the person, connection as human beings, authentic presence, maintaining balance, and a caring conscious intention – doing for and being with another who is in need. Transpersonal means to go beyond the objective assessment, to a deep understanding of the other person's perspective. The goal of the transpersonal caring

relationship involves protecting and preserving the person's dignity, humanity, and wholeness (Watson, 1991).

A caring occasion, or caring moment, occurs when two people come together in an authentic, meaningful, honoring experience, bringing their own unique backgrounds that lead to new discovery of self and other (Watson, 1991). Both the cared-for and the caregiver can be influenced by the caring moment. This is influenced by the choices decided and actions taken within the relationship. These choices are determined by one's past, present, and even imagined future.

Caring in Nursing Education

Watson's (2001) Theory of Transpersonal Caring honors another's autonomy, freedom of choice, and becoming. It serves as a guide for the profession of nursing. The American Nurses Association (ANA) Code of Ethics (2015) includes practicing with compassion, respect, and honoring self-determination. A fundamental principle undergirding all nursing is respect for the dignity, values, choices, and rights of all persons. This is a demonstration of caring between nurse and patient. In nursing education, caring is a transpersonal process involving educators and students. This occurs when instructors use teaching moments as caring occasions (Bevis & Watson, 1989). The instructor-student relationship is reflective of the nurse-patient relationship (Watson, 1988).

Using Watson's theory, Wade and Kasper (2006) identified factors that represent caring nursing instructor behaviors. These factors were: instills confidence; supportive learning climate; appreciation of life's meanings; control versus flexibility, and respectful sharing (Wade & Kasper, 2006). Several studies about nursing instructor effectiveness reflect Watson's carative factors. Respect is a key component of the instructor-student relationship that demonstrates

caring and support (Elcigil & Sari, 2008; Gillespie, 2005; Magnussen & Amundson, 2003; Valiee, Moridi, Khaledi, & Garibi, 2016; Wade & Kasper, 2006). Interpersonal relations also were found to be important in students' perceptions of nursing instructor effectiveness. This included caring behaviors such as conveying confidence, respecting students, and providing honest, direct communication (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Rowbotham & Owen, 2015; Tang, Chou, & Chiang, 2005). Considering all these behaviors reflect caring, there are infinite opportunities for caring encounters between teacher and student (Bevis & Watson, 1989).

Noddings discusses the caring relation in teaching. She views the role of instructor as carer. Noddings (2005) includes listening to students, building trust, engaging in dialogue, collaborating, encouraging moral development, and increasing one's competence as key caring behaviors in education. These share similarities with Watson's Ten Carative Factors.

A caring learning environment also is important in nursing education because this is one of the first instances where students learn about the values of the profession (Begum & Slavin, 2012; Del Prato, Bankert, Grust, & Joseph, 2011). The main method by which students are socialized to these values and attitudes is in their interactions with faculty (Hughes, 1992; Labrague, et al., 2015; Watson, 2008). Several research studies have discussed the importance of faculty role modeling as an effective teaching strategy (Beck, 1991; Grams, Kosowski, & Wilson, 1997; Tang, et al., 2005; Valiee, et al., 2016). Evaluation has also been identified as important for teacher effectiveness, student growth, and student self-efficacy (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Rowbotham & Owen, 2015).

Self-Efficacy Theory

Self-efficacy is one of the major concepts of Bandura's (1977) social cognitive theory. Zulkosky (2009) explains that self-efficacy is not a generalized feeling of confidence, but judgments of a person's capabilities to perform a given action to meet given situational demands. It influences how one feels, thinks, behaves, and is motivated (Bandura, 1997).

The key components of self-efficacy are cognitive processes, affective processes, and motivation. People build anticipatory cognitive scenarios to set goals and guide their actions. These are influenced by one's self-appraisal of capabilities. Those who have high levels of self-efficacy set higher goals and visualize success that provides positive guides for action instead of visualizing failure and dwelling on how things might go wrong (Bandura, 1997). Affective processes, including stress and depression in threatening or taxing situations, are affected by beliefs in one's coping capabilities. Those who believe they can manage threats lower their stress and anxiety by acting in ways that exercise control over the potential threat (Bandura, 1997). People's perception about the underlying causes of successful or deficient performances in their lives affects motivation. Efficacy beliefs mold causal attributions. Those with high self-efficacy attribute failures to insufficient effort or inadequate strategies, which can be corrected (Bandura, 1997).

Expectations of self-efficacy are developed from four sources of information: performance accomplishments, vicarious experience, verbal persuasion, and physiological cues (Bandura, 1977; Zimmerman, 2000). Performance accomplishment involves successful completion of tasks. Self-efficacy increases when a person is repeatedly successful. For example, providing feedback and acknowledging a student's successful accomplishments of skills is one way a nursing instructor can help a student develop performance accomplishment. Vicarious

experiences occur when one watches another do a task and feels confident that he or she also can successfully complete the same task. Nursing instructors often demonstrate skills and model caring behaviors for students in lab, clinical, and the classroom. Verbal persuasion relates to someone convincing another that he or she can be successful at a task. For example, nursing instructors often provide encouragement and positive reinforcement to students. This verbal persuasion may help build students' self-efficacy. The fourth source of information is physiological cues. People rely on their somatic signs, such as anxiety and tension, to judge their capabilities. Nursing instructors can help students become more aware of the tension or anxiety they may experience related to declining patient status, safety issues, and potential medication errors. These four sources of information must occur in order for self-efficacy to be sensed (Zulkosky, 2009).

Caring efficacy is one's belief or ability to express caring attitudes and behaviors, and establish caring relationships with patients (Coates, 1997; Reid, Courtney, Anderson, & Hurst, 2014). Self-efficacy theory provides a connection between beliefs and behaviors in environmental situations and "thus informs the definition and assessment of caring" (Coates, 1997, p. 54). Nursing students' perceptions of being cared for by instructors helps to nurture the students' abilities to care for others (Tanner, 1990).

Learning more about students' perception of instructor caring can help nurse educators and students alike. Instructors can more effectively demonstrate caring strategies and focus on behaviors that exhibit caring more universally. Effective teaching reflects various caring components that can help students improve their caring efficacy. This may lead to more students achieving success in nursing school, and in the profession of nursing. Additionally, effectively

modeling and conveying caring can help perpetuate one of nursing's core values (Labrague, et al., 2015; Li, et al., 2013; Livsey, 2009; Wade & Kasper, 2006).

Students' Views of Caring

Several studies have been done regarding students' views of caring. Some address students' perceptions of important caring behaviors while others address students' views of caring at different stages within the nursing program. Only two of these studies were done with ADN students (Grams, Kosowski, & Wilson, 1997; Simonson, 1996).

Simonson (1996) did a phenomenological study describing the process teachers used to convey caring in an ADN program in New Mexico, and the perspectives of the participants. Simonson used Watson's (1991) Ten Carative Factors as a theoretical base that is similar to other studies (Ali, 2012; Coates, 1997; Hanson & Smith, 1996; Labrague, et al., 2016; Labrague, et al., 2015; Li, et al., 2013; Meyer, Nel, & Downing, 2016; Wade & Kasper, 2006; Zamanzadeh, Shohani, & Palmeh, 2015). The four major themes which emerged for both instructors and students were: formation of a humanistic-altruistic system of values, cultivation of sensitivity to one's self and to others, promotion of interpersonal teaching-learning, and provision for a supportive, protective, and corrective environment. The findings indicate instructors demonstrated caring as a way of being and modeled caring consistently (Simonson, 1996). This is reflective of other qualitative studies on students' perceptions of instructor caring (Dillon & Stines, 1996; Hughes, 1992).

Another qualitative study described the perspectives of nursing students in a caring group throughout their ADN education (Grams, et al., 1997). Students identified instructor behaviors as key in creating an atmosphere for caring, including the instructors' role modeling caring (Grams, et al., 1997). Role modeling as a way to learn caring is supported by a variety of nursing studies

(Beck, 1991; Dillon and Stines, 1996; Hughes, 1992; Reutter, Field, Campbell, & Day, 1997; Simonson, 1996; Tang, et al., 2005; Valiee, et al., 2016). Students also commented that there was a reciprocal relationship of caring between members in the group. This helped participants feel cared for as well as expanded their ability to care for others. Additionally, students stated that creating trust was integral to caring, and consisted of encouragement, nurturing, honesty, and openness (Grams, et al., 1997). This is reflective of Watson's (1991) helping-trusting relationship, and was similar to findings in Adamski, Parsons, and Hooper's (2009) qualitative study on student perceptions of caring when nurses share their stories.

Several quantitative studies have been done to evaluate students' perceptions of caring based on level within the program. Sadler (2003) measured the caring competency of a cross-section of 193 BSN students in one program using the Caring Efficacy Scale (CES), Form B. This version is similar to the original 30-item instrument except it has equal numbers of negatively and positively worded items (Cronbach's $\alpha = 0.90$) (Coates, 1997). Pearson correlation revealed no statistically significant relationship between caring score and level within the program ($r = -0.03$, $p = 0.72$). Variability of caring efficacy score was lowest in the first semester sophomore class (Sadler, 2003).

This finding is similar to two other studies that used the original, 42-item Caring Behaviors Inventory (CBI) (Wolf, Giardino, Osborne, & Ambrose, 1994) to ascertain whether students' perceptions of caring vary at different levels in the nursing program (Loke, et al., 2015; Murphy, Jones, Edwards, James, & Mayer, 2009). The CBI is made up of mostly expressive aspects of caring, and all statements are positive. The initial study included a convenience sample of 278 nurses and 263 patients. Internal consistency reliability was established with an alpha coefficient of 0.96 (Wolf, et al., 1994). Principal component analysis (PCA) with varimax

rotation was used resulting in a five-factor structure (factor loadings > 0.40) (Wolf, et al., 1994). Limitations include a convenience sample of both nurses and patients. Although the overall sample size is 541, these are two separate groups with differing views of caring. The factor analysis of either group independently would be more beneficial, but the sample would need to be a minimum of 420 in either group for a reliable factor analysis (Osborne & Fitzpatrick, 2012). The five factors of the CBI are reflective of Watson's carative factors, and include: respect; assurance of human presence, positive connectedness, knowledge and skills, and attentiveness to the other's experience (Wolf, et al., 1994).

One additional study using the CBI had dissimilar findings, with third year Slovenian nursing students rating caring behaviors as more important than first year students (Mlinar, 2010). Although the overall mean scores for caring for both first and third year students were high, the third year students' overall score was lower in two of the studies (Loke, et al., 2015; Murphy, et al., 2009). This could be related to more novice nursing students responding with idealistic views or strictly from a theoretical perspective. Additionally, it is postulated that expressive caring may decrease over time as instrumental caring increases with more training and a greater focus on the complexity of patient needs (Loke, et al., 2015; Murphy, et al., 2009). Mlinar's (2010) differing findings could be related to cultural values, focus on caring later in the curriculum, or a commitment to the value of caring as socialization into the profession.

Two other qualitative studies had similar findings regarding students' idealism early in the nursing program. Mackintosh (2006) performed a longitudinal study of 16 students' views about care and the effects of socialization through length in the nursing program. The first interview occurred six to nine months after entering the three-year program, and the second interview occurred 18 months later. During the first interview, many students expressed idealistic

views about caring and nursing. By the second interview personal disillusionment with care and nurses' role were expressed by all 16 participants (Mackintosh, 2006). Rhodes, Morris, and Lazenby (2011) explored 74 junior nursing students' motivation for nursing and perceptions of caring in the first month of a BSN program. Altruism was found to be the most common theme for students' primary motivation for entering nursing. Students expressed a desire to help others and contribute to society. Additionally, themes of connection and trust were identified as the most important aspect of caring (Rhodes, et al., 2011).

One cross-sectional comparative, descriptive study is contrary to the above findings (Khademian & Vizeshfir, 2008). The authors adapted the Caring Assessment Questionnaire and surveyed 90 baccalaureate nursing students in Iran. The caring behaviors were identified in seven subscales: accessible, explains and facilitates, comforts, trusting relationship, anticipates, monitors and follows through, and spiritual care. The researchers stated there was no statistically significant difference between year of study and perceptions of caring behaviors, however specific *r* and *p* values were not included (Khademian & Vizeshfir, 2008). Students also perceived technical caring behaviors as more important than affective behaviors. Although there is a cultural element in this study, the findings are similar to more senior nursing students' perceptions found in Loke, et al. (2015) and Murphy, et al. (2009). The findings differ from one study focused on students' experiences learning caring (Drumm & Chase, 2010), and several studies that were more focused on students' perception of faculty caring which indicate expressive behaviors as more relevant than instrumental behaviors (Labrague, et al., 2015; Livsey, 2009; Wade & Kasper, 2006).

Drumm and Chase (2010) studied senior BSN students' experience with learning caring. The two major themes extracted from the data included innate knowing of self as caring, and caring in the curriculum. Students commented on their increased capacity to care by understanding one's own beliefs as well as the other person's which is reflective of Watson's third carative factor. A sub-theme of caring in the curriculum was doing little things to express caring (Drumm & Chase, 2010). Students' examples included asking if someone needed assistance and providing a smile. This concurs with other studies that found expressive behaviors as important to students' perceptions of faculty caring behaviors (Labrague, et al., 2015; Livsey, 2009; Wade & Kasper, 2006).

Students' Caring Self-Efficacy

Livsey (2009) performed a descriptive correlational study of 243 students enrolled in BSN programs in 16 southern states. This quantitative study described the relationships between students' perceptions of empowerment in clinical, leadership behaviors of clinical instructors, and student caring self-efficacy. One instrument used was the CES. Results included a positive correlation between empowerment and caring self-efficacy, although not significant ($r = 0.12$, $p > 0.05$). Additionally in the low leadership faculty group, caring self-efficacy was negatively correlated with nursing leadership ($r = -0.02$, $p = .86$). The opposite was found in the high leadership faculty group, with caring self-efficacy positively and significantly correlated with nursing leadership ($r = 0.26$, $p = 0.00$) (Livsey, 2009). These findings correlate well with students' perceptions of faculty behaviors influencing their learning and caring abilities (Labrague, et al., 2015; Wade & Kasper, 2006). This study also relates to Hanson & Smith's (1996) study of caring and not-so-caring interactions with faculty. This study has value because

faculty help shape students' views about caring which is a critical element of nursing. All of these studies were done with baccalaureate nursing students only.

Rowbotham and Owen (2015) performed a quantitative study of 115 junior and 121 senior baccalaureate nursing students to examine the relationship between clinical instructor behavior and student self-efficacy. The researchers used the student self-efficacy (SSE) questionnaire and the Nursing Clinical Teacher Effectiveness Inventory (NCTEI). The SSE survey is a 10-item questionnaire using a four-point Likert-type scale addressing four areas: academic performance, skill and knowledge development, social interaction with faculty, and coping with academic stress (Chronbach's $\alpha = 0.81$). The NCTEI consists of 47 questions using a seven-point Likert-type scale within five categories: teaching ability, nursing competence, evaluation, interpersonal relationship, and personality (Chronbach's $\alpha = 0.99$). Students were then placed in high or low student self-efficacy groups. Using multivariate analysis of covariance (MANCOVA), the only teacher effectiveness category that was statistically significant with the higher student self-efficacy group was evaluation ($F(1, 229) = 7.47$, $p = .01$, partial eta squared = .03) (Rowbotham & Owen, 2015). This seems to correlate to students' perceptions of effective instructor behaviors regarding feedback and evaluation in multiple studies (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Gillespie, 2002).

These studies support the important role of evaluation in students' perception of effective instructor behaviors, and in the overall learning process (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Gillespie, 2002; Rowbotham & Owen, 2015). Performance accomplishment is one source of developing expectations of self-efficacy (Bandura, 1997). Instructor evaluation and feedback of student performance can influence students' beliefs about their caring self-efficacy in nursing. Students also perceived instructor role modeling as an important way of learning

caring and developing in the nursing profession (Beck, 1991; Dillon & Stines, 1996; Grams, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016). Other instructor behaviors that students seemed to consistently view as caring in the research include sharing of self (Beck, 1991; Dillon & Stine, 1996; Wade & Kasper, 2006), developing trust (Cook, 2005; Li et al., 2013, & Rhodes, 2011), instilling confidence (Beck, 2001; Hanson & Smith, 1996; Labrague, et al., 2016; Labrague, et al., 2015; Wade & Kasper, 2006), and creating a respectful and supportive learning climate (Beck, 2001; Simonson, 1996; Wade & Kasper, 2006). These caring behaviors can be reinforced with verbal persuasion and role modeling.

Effects of Caring and Support on Student Socialization to the Profession

Verbal persuasion is one source of developing expectations of self-efficacy (Bandura, 1977). It also relates to someone convincing another that he or she can be successful at a task. Research supports that caring instructor-student relationships help students grow in their caring abilities and their development of a professional nursing identity (Del Prato, 2013; Gillespie, 2002; Labrague et al., 2015; Magnussen & Amundson, 2003; Simonson, 1996; Wade & Kasper, 2006). This caring-learning environment is collaborative and respectful, and promotes student success (Bankert & Kozel, 2005; Del Prato, et al., 2011; Hughes, 1992; Magnussen & Amundson, 2003).

Research on student support and socialization into the profession of nursing covers a broad array of topics from pre-requisite course grades and demographics to stressors in the nursing environment. For this literature review the focus was specifically on instructor support and caring with pre-licensure nurses and the effects on student socialization into nursing.

DuToit's quote of Cohen's definition of professional socialization is relevant to all professions, including nursing.

Professional socialization is the complex process by which a person acquires the knowledge, skills, and sense of occupational identity that are characteristic of a member of that profession. It involves the internalization of the values and norms of the group into the person's own behavior and self-conception (DuToit, 1995, p. 165).

Socialization into nursing is an essential process of learning skills, attitudes, and behaviors necessary to assume the professional role (Del Prato, 2013; Howkins & Ewens, 1999; Secrest, Norwood, & Keatley, 2003). Socialization in nursing also includes understanding the norms and values fundamental to the profession (Howkins & Ewens, 1999; Price, 2008). Nursing students' professional formation occurs formally in both the classroom and in the clinical environment (Del Prato, 2013). Socialization to professional values also occurs during informal experiences. This informal curriculum is experienced in how faculty teach and in the faculty-student relationship (Bevis & Watson, 1989). Practicing and experiencing a collaborative, supportive instructor-student relationship exemplifies the nurse-patient caring relationship and helps students develop self-efficacy and socialization in the role of a nurse (Ware, 2008; Watson, 1988).

Research on nursing students' socialization to the professional role has been mainly focused on BSN students. There are only two studies that have been done with ADN students. Shelton's (2003) research addressed the relationship between faculty support and ADN student success, which includes attaining the professional role. Del Prato's (2013) research focused on barriers and influences to professional formation in ADN students.

Shelton's (2003) quantitative study researched the relationship between faculty support and student persistence in nine ADN programs in Pennsylvania and New York. The researcher developed the Perceived Faculty Support Scale, a five-point likert-type scale made up of 24 items. To establish content validity the instrument was reviewed by three expert nurse educators. Factor analysis using varimax rotation revealed two factors: psychological support and functional support. Factor loadings ranged from .52 to .79 and .49 to .77 respectively. The Cronbach's alpha for the pilot study of 22 students was 0.92 and 0.96 for the full study of 458 students. Using one-way analysis of variance (ANOVA) with a post hoc Scheffe analysis, Shelton (2003) determined students who persisted perceived faculty support as significantly greater than those who withdrew (mean difference = 11.57; $p < .001$). This relates to several studies that address students' perceptions of instructor caring as support (Hanson & Smith, 1996; Hughes, 1992; Labrague, et al., 2016; Labrague, et al., 2015; Livsey, 2009). Combining perceived faculty support and caring with student caring self-efficacy brings together the importance of instructor behavior and modeling on student abilities toward caring and positive student outcomes, including socialization to the professional role (Livsey, 2009; Rowbotham & Owen, 2015; Shelton, 2003; Shelton, 2012).

Del Prato (2013) studied the lived experiences of ADN students and the practices that supported students' socialization to nursing. Students commented that they appreciated caring faculty who provided formative feedback, conveyed belief in their abilities, and assisted them in dealing with challenges (Del Prato, 2013). This is similar to other findings suggesting that the construction of a nursing identity and socialization is grounded in interactions with faculty and others (Secrest, et al., 2003; Ware, 2008). Conversely students expressed disillusionment of nursing as a caring profession because of experiences with faculty incivility. This incivility

"negatively influenced professional formation by hindering students' learning, self-esteem, self-efficacy, confidence, and developing identity as a nurse" (Del Prato, 2013, p. 288). Research suggests that caring instructor-student relationships and a sense of belonging supports students' learning, self-efficacy, and socialization (Christiansen, O'Brien, Kirton, Zubairu, & Bray, 2015; Del Prato, et al., 2011; Levett-Jones, Lathlean, Higgins, & McMillan, 2009; Secrest, et al., 2003).

Mackintosh (2006) performed a qualitative, longitudinal study in the United Kingdom exploring how socialization influenced nursing students' views about caring. A general theme among the 16 three-year nursing students during their second interview was personal disillusionment with care brought about from poor role models, reflecting negative caring examples. This led to two varying perspectives from students. One view included rejecting the cynicism of the staff nurses to maintain a caring focus. The contrasting view of several other students focused on the need to have some amount of emotional hardening or lessening of care in order to cope with the complex patient issues that occur (Mackintosh, 2006). This second view seems to relate more with the disillusionment found in the Del Prato (2013) study with ADN students.

A meta-analysis done by Price (2008) reviewed ten qualitative studies on early socialization experiences and career choices by nursing students and new graduate nurses. Early experiences, such as interactions with nurse role models including instructors, strongly influenced a student's view of nursing. The review also addressed that early negative experiences can lead to distress related to idealism versus reality in practice. This dissonance can lead to burnout and an intention to leave the profession within the first year of professional practice (Michalec, Diefenback, & Mahoney, 2013; Price, 2008). Educators have the

opportunity to help students with this important transition to the profession. Instructors' positive role modeling and caring can help students actualize their ideals to fit with their professional identity and needs (Beck, 1991; Dillon & Stines, 1996; Grams, et al., 1997; Price, 2008; Reutter, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016; Ware, 2008).

A study by Levett-Jones, et al. (2008) supports the finding that the instructor-student relationship and sense of belonging positively influence socialization. This study examined nursing students' perceptions of belongingness and the duration of clinical placement. The mixed method study included 362 students completing the Belongingness Scale-Clinical Placement Experience instrument. This is a 34-item instrument designed to measure belongingness. The Cronbach's alpha was 0.92 (Levett-Jones, et al., 2008). Additionally a purposive sample of 18 students was recruited from among those who completed the instrument. Semi-structured interviews were conducted with these 18 students. Findings suggested that students' self-concept, self-efficacy, confidence, and motivation were all positively affected when their feelings of belongingness were higher (Levett-Jones, et al., 2008). A phenomenological study done by Secrest, Norwood, and Keatley (2003) with BSN students also found the theme of belonging as important in developing socialization. The other two themes noted in this study were competence and affirmation (Secrest, et al., 2003).

Two other qualitative studies exploring BSN students' socialization to nursing also found the instructor-student relationship and role-modeling to be important factors (Reutter, et al., 1997; Ware, 2008). Students considered nursing faculty a strong influence in the process of socialization; not only what they say and teach, but their behaviors and actions (Ware, 2008). These studies support other research suggesting student interactions with instructors is a key

method by which students are socialized to the profession (Beck, 1991; Grams, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016).

Students' Perceptions of Instructor Caring Behaviors

Beck (1991) explored baccalaureate students' perceptions of caring interactions with nursing instructors. The three themes that emerged through her phenomenological, descriptive study were attentive presence, sharing of selves, and positive consequences (Beck, 1991). Dillon and Stines (1996) replicated Beck's (1991) qualitative study; however, the subjects were LPN and nurses' aide students. This study (Dillon & Stines, 1996) was included because many ADN programs offer a nurses' aide certification after completion of one or two terms. Additionally, many ADN programs are designed so students receive their LPN certificate after completing the first year. Only the theme of sharing of selves was similar between the two studies. Respecting the student as a unique individual and role-modeling were the other two themes that emerged (Dillon & Stines, 1996). Some of the differences in findings could be related to the variation of experience level, maturity, and need for more direct instructor involvement for LPN and nurses' aide students. Common behaviors reported in both studies included instructors taking time with individual students, attentive listening in a non-judgmental manner, concern for one's well-being, and treating the student with equality and respect (Beck, 1991; Dillon & Stines, 1996).

Two qualitative studies described faculty-student caring interactions from junior BSN students' perspectives (Hanson & Smith, 1996; Hughes, 1992). Themes of recognition, connection, and confirmation/affirmation emerged in Hanson and Smith's (1996) study. Although terms varied in Hughes' (1992) study, similar themes included dialogue and confirmation. Other themes included presence and role-modeling (Hughes, 1992). Subjects in

both studies were fairly homogeneous; however, subjects in Hanson and Smith's (1996) study represented three ethnicities while those in Hughes' (1992) study were all Caucasian.

Cook (2005) compared junior and senior students' perceptions of inviting teaching behaviors of clinical faculty from ten different BSN programs. This descriptive, correlational, and comparative study also addressed the relationship between students' perceptions of teaching behaviors and students' anxiety. Instruments used included the Clinical Teaching Survey (CTS) (Ripley, 1986) and Spielberger's (1983) State Anxiety Scale (SAS). Reliability and validity of the instruments were discussed. The CTS consists of 44 items used to measure nursing students' perceptions of clinical instructors' inviting teaching behaviors. The survey consists of both positively and negatively worded items for both subscales of personally and professionally inviting behaviors. The Cronbach's alpha for the CTS was reported as 0.97 (Cook, 2005). The SAS consists of 20 items measuring essential characteristics including feelings of tension, nervousness, worry, and apprehension (Spielberger, 1983). Cronbach's alpha for the SAS range from 0.89 to 0.96 (Cook, 2005).

Inviting behaviors included core concepts of respect, trust, care, optimism, and intentionality (Cook, 2005). These behaviors reflect Watson's carative factors and the transpersonal caring relationship. All participants rated clinical instructors as having high levels of inviting behaviors. Using independent means t-tests, findings indicated a significant difference between junior and senior students' perceptions. Junior students rated faculty as more personally ($t = 3.07$, $df = 182.6$, $p < .002$) and professionally ($t = 2.03$, $df = 189.1$, $p < .04$) inviting than senior students (Cook, 2005). These findings could be related to the need for more faculty support and assistance with junior nursing students who are just beginning their clinical experience. Conversely senior nursing students have greater clinical exposure and are gaining

more independence in their practice, thus possibly seeing faculty as more distant (Cook, 2005). There was; however, no statistically significant difference between junior and senior students' perception of anxiety.

Wade and Kasper (2006) developed and tested the Nursing Students' Perceptions of Instructor Caring (NSPIC) instrument. The instrument was developed in collaboration with Dr. Jean Watson, an expert in nursing caring theory and caring research. It was pilot-tested with 20 senior nursing students. A convenience sample of 43 junior and 88 senior BSN students was used for the research study. The average age for students was 23 years, which represents traditional students. The instrument does contain both positive and negative items that may decrease the possibility of a response set bias. Principal component analysis (PCA) with varimax rotation was performed on the 31-item instrument. The five factor solution explained 71.7% of the variance (Wade & Kasper, 2006). The five factors identified in the instrument are: instills confidence, supportive learning climate, appreciation of life's meanings, control versus flexibility, and respectful sharing (Wade & Kasper, 2006). These factors, reflective of transpersonal caring in nursing education, are similar to the five categories of inviting behaviors used in Cook's (2005) study. They're also similar to the five themes of presencing, sharing, supporting, competence, and uplifting effects of caring found in Beck's (2001) meta-synthesis of caring in nursing education.

Convergent validity was analyzed using Golden's (1993) semantic differential scale which also measures nursing students' perceptions of instructor caring. The NSPIC scores were significantly correlated ($r = 0.89$, $p \leq 0.01$) with scores from Golden's scale, indicating that they both are measuring nursing students' perceptions of instructor caring. Predictive validity was analyzed using the Caring Efficacy Scale (CES) (Coates, 1997). The correlation between the

NSPIC and CES was statistically significant ($r = 0.33$, $p \leq 0.01$) (Wade & Kasper, 2006). This suggests the NSPIC is a moderate predictor of caring efficacy. The 31-item instrument had a Cronbach's alpha of .97, indicating good reliability (Wade & Kasper, 2006). Although reliability and validity were confirmed, this was the preliminary data, and obtained from one BSN program in the United States. Additionally, the principal component analysis (PCA) of the 31-item instrument was done with a sample of 131 students, although the minimum sample size necessary to produce reliable results with PCA should be 10 to 15 participants per item (Osborne & Fitzpatrick, 2012), which would mean a minimum of 310 participants. This small sample may have caused a faulty factor structure.

Both junior and senior students perceived their instructors as caring. However, senior students' perceptions of their instructors were significantly more positive than junior students ($p = 0.032$) (Wade & Kasper, 2006). This is directly opposite to Cook's (2005) findings that junior students rated their instructors as having greater inviting behaviors than senior students. One explanation for this could be the more experienced senior students were better able to recognize caring behaviors in their own practice that reflected the caring behaviors of their instructors.

Ali (2012) utilized the NSPIC in a descriptive study to explore students' perceptions of clinical instructor caring behaviors. A convenience sample of 113 nursing students in a baccalaureate program in Saudi Arabia was surveyed. The NSPIC was translated into Arabic and piloted with 10 students to test the questions for wording and clarity. Rankings of sub-scales were calculated relative to maximum scores. The highest ranked sub-scale was respectful sharing (81.5%), followed by appreciation of life's meaning (79.5%) (Ali, 2012). This is reflective of the effective instructor behaviors of respecting students (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Rowbotham & Owen, 2015; Tang, et al., 2005), and sharing of self (Beck, 1991;

Dillon & Stines, 1996; Grams, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016). The lowest ranked sub-scale was control versus flexibility (64.3%) (Ali, 2012). Although this study used the NSPIC instrument, there was no discussion as to whether the researcher determined validity with the translated version. Additionally, the researcher only analyzed the data with a basic descriptive design. Correlating the sub-scales or adding an independent variable to test might have made the findings more beneficial.

The NSPIC instrument was used in a cross-sectional study of nursing students in China (Li, et al., 2013). The convenience sample of nursing students was primarily baccalaureate and three-year nursing students, with only one two-year nursing student (.28%) (Li, et al., 2013). The instrument was translated into Chinese. Content validity was determined by a panel of experts in nursing, psychology, and two student members who were selected to review the translated instrument for accuracy, clarity, style, and cultural relevance. The Cronbach's alpha for the Chinese version pilot-test of 256 students was 0.93, indicating good reliability (Li, et al., 2013). Thirty of these students retook the test within two weeks to determine test-retest reliability. The ICC scores for each sub-scale ranged from 0.60 to 0.96, indicating good to excellent agreement (Li, et al., 2013).

The validation sample was 358 nursing students. This sample size is large enough for the PCA to produce reliable results. The average age was 21.56, consistent with traditional students. Construct validity was demonstrated using principal component analysis (PCA) with varimax rotation. The five factors accounted for 62.58% of the variances; all of the items loading between 0.41 and 0.83 (Li, et al., 2013). Confirmatory factor analysis (CFA) was also conducted. One item that originally loaded on the respectful sharing factor, loaded on the control versus flexibility factor in CFA (Li, et al., 2013). The results ($\chi^2/df = 2.57$, CFI = 0.91, RMSEA = 0.07,

NNF = 0.90, IFI = 0.91) suggested a five-factor structure consistent with Wade and Kasper's (2006) original English version (Li, et al., 2013). The convenience sample of students in grade A teaching hospitals in Shanghai may not be representative for general nursing students in China. This study did not differentiate students' perceptions based on program type or year in the program. The highest mean scores for positive statements related to displaying kindness, making self (the instructor) available, and allowing students to express feelings (Li, et al., 2013). These are similar to findings in other studies related to presence (Beck, 1991; Hughes, 1992), sharing of self (Beck, 1991; Dillon & Stines, 1996), connection (Hanson & Smith, 1996), and trust and intentionality (Cook, 2005).

Zamanzadeh, Shohani, and Palmeh's (2015) descriptive study examined nursing students' perception of instructor caring at a large university in Iran. The NSPIC instrument was translated into Persian. Ten nursing instructors reviewed and evaluated the translated instrument to determine content validity. Ten nursing students pilot-tested the instrument and did the questionnaire twice within two weeks as a test-retest reliability using Pearson's correlation coefficient ($r = 0.94$) (Zamanzadeh, Shohani, & Palmeh, 2015). The randomized sample of 240 students was proportionally stratified, taking 40 students each from third and fourth semesters, and 20 students each from the fifth through eighth semesters. The average age of the participants was 21.70, consistent with traditional baccalaureate students. The highest ranked factor (sub-scale) was respectful sharing ($M = 5.22$, $SD = 1.20$, 95% CI = 5.07, 5.37), and the lowest ranked sub-scale was control versus flexibility ($M = 4.41$, $SD = 1.13$, 95% CI = 4.27, 4.56) (Zamanzadeh, et al., 2015). This is consistent with Ali's findings of highest and lowest ranked sub-scales (Ali, 2012). It was surprising to this researcher that this study did not statistically examine the relationship between students' caring perception and level within the program. They

randomized the sample based on proportionate numbers of students from multiple levels within the program, but only used it to ensure a cross-section of students were represented for overall descriptive analysis.

Another study using the NSPIC had a convenience sample of 586 student nurses from four countries (Labrague, et al., 2015). The authors used the NSPIC and the Caring Behaviors Inventory-short form (CBI-24) (Wu, Larrabee, & Putnam, 2006) to identify the correlation between students' perception of instructor caring and students' perception of their own caring behaviors. The CBI-24 measures four subscales of caring: assurance of human presence; knowledge and skills; positive connectedness, and respectfulness (Wu, et al., 2006). A convenience sample of second, third, and fourth year baccalaureate students from Greece, the Philippines, India, and Nigeria were included. The English version of both instruments were used, except in Greece where both instruments were translated. Content validity for the translated version was established through a panel of experts. The average age of the participants was 22.32 years, reflective of traditional students.

Using Pearson correlation coefficients, the researchers found that the NSPIC and CBI-24 correlated significantly ($r = 0.59$, $p < .001$). Four of the NSPIC sub-scales correlated significantly with the CBI. These were: instills confidence through caring ($r = 0.51$, $p < .001$), appreciation of life's meaning ($r = 0.33$, $p < .001$), control versus flexibility ($r = 0.57$, $p < .001$), and respectful sharing ($r = 0.49$, $p < .001$) (Labrague, et al., 2015). The supportive learning climate was the only sub-scale that was not significantly correlated ($r = 0.01$, $p < 0.41$) (Labrague, et al., 2015). A stepwise multiple regression analysis was done to determine if there was predictive ability of the NSPIC sub-scales on the CBI. The two sub-scales that explained 35% of the variance in the CBI and were statistically significant ($p < .001$) were instills

confidence through caring, and appreciation of life's meaning. Students who reported high values in these sub-scales also reported higher degrees of caring behaviors (Labrague, et al., 2015).

The highest ranked sub-scale was instills confidence through caring ($M = 4.28$, $SD = 0.94$). The highest ranked sub-scale is similar to two other NSPIC studies (Labrague, et al., 2016; & Meyer, et al., 2016), but differs from Ali's (2012) and Zamanzadeh, et al.'s (2015) research. The instills confidence sub-scale reflects similarly to studies identifying confidence (Beck, 2001; Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Hanson & Smith, 1996; Labrague, et al., 2016; Rowbotham & Owen, 2015; Tang, et al., 2005), and trust development (Cook, 2005; Hanson & Smith, 1996; Hughes, 1992; Li, et al., 2013; Rhodes, et al., 2011) as important or frequently perceived instructor caring behaviors. The lowest ranked sub-scale was control versus flexibility ($M = 3.47$, $SD = 0.70$) (Labrague, et al., 2015). This is consistent with findings from several NSPIC studies (Ali, 2012; Labrague, et al., 2016; & Zamanzadeh, et al., 2015). A limitation of this study is 40 percent of the subjects were in the fourth year of the program. Having uneven distribution between the levels in the program could create a bias since these students have the greatest amount of clinical experience and exposure to caring behaviors and practice. Additionally, CBI-24 is comprised of all positive caring statements. This could lead to a response set bias.

Another published article with Labrague as the lead researcher involves the same four countries as mentioned above (Labrague, et al., 2016). This study examined the correlations between students' perceptions of instructor caring (using the NSPIC) and demographics, and students' perceptions of instructor caring between countries (Labrague et al., 2016). The time frame of sampling and collecting data was the same as the prior study. Total participants were

less in this study, with 450 complete responses submitted. The average age of the nursing students was 21.69 years, still typical for traditional students. The highest ranked sub-scale was instills confidence through caring ($M = 4.27$, $SD = 0.96$), while the lowest ranked sub-scale was control versus flexibility ($M = 3.61$, $SD = 1.08$) (Labrague, et al., 2016). Bivariate analysis was generated to examine the relationship between total NSPIC score and student demographics. There were no statistically significant correlations found between the NSPIC scale and gender, age, educational level, or marital status. Bivariate analysis did indicate the correlation between the NSPIC scale and country of origin was statistically significant ($F = 3.70$, $p = 0.01$, $\eta = 0.02$) (Labrague, et al., 2016). Students ranking the instills confidence through caring sub-scale highest is reflective of various research regarding perceptions of effective instructor behaviors (Beck, 2001; Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Hanson & Smith, 1996; Labrague, et al., 2015; Rowbotham & Owen, 2015; Tang, et al., 2005).

Using the NSPIC, Meyer, Nel, and Downing (2016) examined the relationships between nursing students' perception of instructor caring and age, level in program, and frequency of contact with a clinical instructor. The sample consisted of 290 baccalaureate nursing students from a large, private South African university. The overall NSPIC Cronbach's alpha coefficient was .09, indicating reliability (Meyer, et al., 2016). The average age for junior students was 26.8 years, and for senior students was 31.29 years. These ages are more reflective of non-traditional students. Using Pearson's correlation and Spearman's Rho test, there was a significant negative correlation between student nurses' perceptions of instructor caring in the control versus flexibility subscale and age ($r = -0.13$, Sig. 2-tailed = 0.03, $p < .05$; $\rho = -0.16$, Sig. 2-tailed = 0.01, $p < .05$) (Meyer, et al., 2016). There were no significant correlations noted between age and any of the other four sub-scales. Using independent sample t-tests, it was concluded that no

significant relationship existed between nursing students' perceptions of instructor caring and the level within the program. Using a one-way ANOVA test, it was concluded that no significant relationship existed between nursing students' perceptions of instructor caring and the frequency of clinical instructor contact (Meyer, Nel, & Downing, 2016).

The highest ranked sub-scale for both juniors and seniors was instills confidence through caring (Jrs: $M = 5.01$, $SD = 0.92$; Srs: $M = 4.69$, $SD = 0.97$) (Meyer, et al., 2016). This finding is similar to other studies (Labrague, et al., 2015; Labrague, et al., 2016). The lowest ranked sub-scale for juniors was appreciation of life's meanings ($M = 4.48$, $SD = 1.11$), but the lowest ranked sub-scale for seniors was control versus flexibility ($M = 4.02$; 1.06) (Meyer, et al., 2016). All other studies using the NSPIC that reported sub-scale rankings reported control versus flexibility as the lowest (Ali, 2012; Labrague, et al., 2016; Labrague et al., 2015; Li, et al., 2013).

These studies on students' perceptions of instructor caring reflect similar behaviors identified for effective nursing instructors (See Appendix A for the Crosswalk of NSPIC, carative factors, and instructor caring behaviors). These include:

1. Instilling/conveying confidence (Beck, 2001; Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Hanson & Smith, 1996; Labrague, et al., 2016; Rowbotham & Owen, 2015; Tang, et al., 2005).
2. Developing trust (Cook, 2005; Hanson & Smith, 196; Hughes, 1992; Li, et al., 2013; Rhodes, et al., 2011).
3. Creating a respectful and supportive learning climate (Beck, 2001; Simonson, 1996)
4. Respecting students (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Rowbotham & Owen, 2015; Tang, et al., 2005).

5. Sharing of self (Beck, 1991; Dillon & Stines, 1996; Grams, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016).

These studies all reflect the importance of nursing education's role to teach caring, and help facilitate the socialization of nursing students into the profession. Students are multidimensional beings whose perceptions of instructor caring, amount of support needed, and success in nursing school are influenced by multiple factors. Some of these factors include age, level in program, employment status, marital status, race and ethnicity, caregiving responsibilities, level of anxiety, and health issues (Jeffreys, 2015). Three of these variables will be addressed in this research study: age, employment status, and race/ethnicity.

Although some of the literature included in this review is dated, the earlier works included reflect some of the beginning research done about nursing students' perceptions of instructor caring and students' views of caring. Caring is an essential component of nursing (Khademian & Vizeshfar, 2008; Labrague, et al., 2015; Mlinar, 2010; Wade & Kasper, 2006). As nurses focus more on increasing their technological competencies in an increasingly complex healthcare environment, there is concern that caring may be minimized or lost (Grobbe & Rowe, 2014). Comparing recent literature with research done in the 90's can help demonstrate progression in views on caring, as well as show consistent themes over time.

Age and Students' Perception of Instruction

Of the two studies using the NSPIC that include age as a variable (Labrague, et al., 2016; Meyer, et al., 2016), only one found a statistically significant relationship between age and students' perception of caring in the control versus flexibility caring sub-scale (Meyer, et al., 2016). Using Pearson's correlation and Spearman's Rho test, there was a significant negative correlation between student nurses' perceptions of instructor caring in the control versus

flexibility sub-scale and age ($r = -0.13$, Sig. 2-tailed = 0.03, $p < .05$; $\rho = -0.16$, Sig. 2-tailed = 0.01, $p < .05$) (Meyer, et al., 2016). There were no significant correlations noted between age and any of the other four sub-scales. The average age of senior students in the study was 31.29 years, which is reflective of non-traditional students (Meyer, et al., 2016). The issue of age may be a factor when looking at ADN versus BSN students. According to the Postsecondary National Policy Institute (PNPI), non-traditional students, who are typically 25 years of age or older, are more likely to enroll at two-year, public institutions (2015). Justice and Dornan (2001) suggested there are metacognitive differences between traditional and non-traditional college students. These changes may lead to differences in students' perceptions between the two age groups.

Hill and Christian (2012) examined college student perceptions of instruction, and ideals of teaching using a 68-item survey developed by the researchers. The sample was 125 undergraduate and graduate students in a mid-sized southeastern university. The average age of participants was 24.9, which reflects the non-traditional student age. The survey had two 34-item sub-scales, student ideals of teaching, and student perceptions of teaching. Three factor analyses were conducted: one on the overall survey, and one on each of the sub-scales. The factor analysis on the overall survey had a total eigenvalue of 12, and explained 18% of the total variance. The factor analyses for student ideals of teaching and student perceptions of teaching had eigenvalues of 7.5 and 8.6, and represented 23% and 26% of the variances respectively (Hill & Christian, 2012). All items were retained due to factor loadings of .46 and higher (Hill & Christian, 2012). Additionally, the researchers examined the relationship between student ideals, student perceptions, and demographic data, including age. There was a positive correlation between age and students' perceptions that instructors have favorites ($r = 0.30$), and a negative correlation between age and the ideal that instructors know students' names ($r = -0.25$) (Hill & Christian,

2012). Older students also preferred competent instructors over personable instructors (Hill & Christian, 2012). This preference for competent instructors is reflective of Watson's (1991) carative factor addressing the use of problem-solving and critical thinking, and Nodding's (2005) view that increasing one's competence is a key caring behavior.

Strage (2008) examined undergraduate students' perceptions of their ideal learning environment, considering both professor and course. A sample of 1310 students completed the 96-item survey developed by the researcher. There is no information on the reliability and validity of the survey developed. The top two most frequently cited characteristics of the ideal professor were knowledgeable (46.8%), and caring and concerned about their students (44.2%). For the ideal course, the top two most frequently cited characteristics were engaging (53.6%) and fun (27.1%) (Strage, 2008). One-way ANOVA's were performed to examine relationships between age and students' perceptions of professor and course. There were significant differences related to age groups. Older students described their ideal professor as one who was organized ($F = 6.59, p < .01$), and flexible ($F = 5.86, p < .01$), and their ideal course as well organized ($F = 4.70, p < .01$) (Strage, 2008). Conversely, the traditional age students described their ideal professor as funny ($F = 4.11, p = .02$), and enthusiastic ($F = 4.07, p = .02$), and their ideal course as engaging ($F = 5.21, p < .01$), and fun ($F = 11.21, p < .01$) (Strage, 2008). This could indicate older students value certain characteristics due to maturity or other factors, such as being employed or having children. This study demonstrates the potential differences in students' perceptions based on age.

Employment and Academic Achievement in Nursing Education

None of the NSPIC studies explored employment as a variable. There have been studies published that examined employment effects on academic performance in nursing education. These studies found nursing students who worked more than 16 hours per week had decreased academic performance in courses (Body, Bonnal, & Giret, 2014; Rochford, Connolly, & Drennan, 2009; Salamonson & Andrew, 2006; Salamonson, Andrew, & Everett, 2009), and in the overall program (Dante, Valoppi, Saiani, & Palese, 2011). No studies addressed employment as a variable related to caring perceptions. Students who work may require instructors to provide more support and resources in order to succeed.

One prospective study examined the effects of age, employment, and ethnicity on academic performance of baccalaureate nursing students in two subjects (Salamonson & Andrew, 2006). The sample consisted of 235 second year nursing students from an Australian university. Demographic data was collected and consent obtained to review students' grades. The average age of participants was 24.87 years. Using a one-way ANOVA, the results indicated a statistically significant relationship between average hours worked and students' academic performance in pathophysiology ($F(2, 218) = 5.99; p < 0.01$) and nursing practice ($F(2, 218) = 5.45; p < 0.01$) (Salamonson & Andrew, 2006). Multiple regressions were used to examine scores in the two courses with age, and hours of employment. "All variables were statistically significant predictors of academic performance in both subjects. In both regression models, the strongest predictor for both subjects was hours spent in part-time employment" (Salamonson & Andrew, 2006, p. 346). Table 1 shows multiple regression model data from cited research involving employment as a variable. This study demonstrated that any amount of employment

had a negative influence on academic achievement. Additionally, older students (25 years and older) performed better than younger students (24 years and younger).

Table 1

Multiple Regression Models from Cited Research Involving Employment as a Variable

Study	Variables	β	t	P value
Salamonson & Andrews, 2006	Total score in Pathophysiology			
	Hrs spent working	-0.29	-4.75	< 0.01
	Non-English speaking at home	-0.19	-3.08	< 0.01
	Older age (>25 years)	0.14	2.29	0.02
Overall model: $R^2 = 0.13$, $F(3, 218) = 11.49$, $P < 0.001$, adjusted $R^2 = 0.12$				
	Total score in Nursing Practice			
	Hrs spent working	-0.26	-4.03	< 0.01
	Non-English speaking at home	-0.25	-3.76	< 0.01
	Older age (>25 years)	0.14	2.11	0.04
Overall model: $R^2 = 0.13$, $F(3, 218) = 10.34$, $P < 0.001$, adjusted $R^2 = 0.12$				
Salamonson, Andrew, & Everett, 2009	Assessment scores in Pathophysiology			
	Overall homework completion	0.44	5.27	< 0.01
	Overall lecture attendance	0.21	2.59	0.01
	Employment > 16 hours per week	-0.26	-3.31	< 0.01
	Study time (5 hrs or more per week)	0.02	-0.24	0.81
	Age (23 or older)	0.05	0.62	0.54
	Non-English speaking at home	0.11	1.39	0.17
Overall model: $R^2 = 0.38$, $F(7, 114) = 12.00$, $P < 0.01$, adjusted $R^2 = 0.34$				

Salamonson, Andrew, and Everett (2009) studied academic engagement (homework completion, lecture attendance, and employment) as predictors of student performance (grades in pathophysiology). The study also examined the relationship between academic engagement and employment, and age. The sample was 126 BSN students in a pathophysiology course in a university in Australia. The average age of participants was 24.8 years, similar to the non-traditional student. The researchers conducted Mann-Whitney U tests for all comparisons that

were not normally distributed. The only statistically significant findings were older age students (23 or older) attended lecture a significantly higher percentage ($p < 0.01$) than younger students, and students who worked 16 hours or more per week were significantly less likely to attend lectures ($p = 0.04$) (Salamonson, et al., 2009). A multiple regression model was used to determine associations between academic engagement factors and student performance (See Table 1). Homework completion, and lecture attendance were significant predictors of academic performance, with positive associations. The only significant negative association was working 16 hours or more per week (Salamonson, et al., 2009).

A study done with BSN students from a university in Ireland examined the relationship between employment and academic achievement (Rochford, Connolly, & Drennan, 2009). The average age of participants was 22.77 years, consistent with traditional baccalaureate students. Hierarchical multiple regression models were used to examine the impact of employment on various achievement factors, including course performance, personal and professional development, overall college experience, and student grades. There was no statistical significance found between personal and professional development and employment. There was a negative impact on course performance based on hours worked, though it was not statistically significant. A statistically significant effect on student grades was noted when number of hours and rate of pay variables were added. Table 2 shows the hierarchical multiple regression model data from this study (Rochford, et al., 2009). These findings are similar to Salamonson and Andrew's (2006) study.

Table 2

Hierarchical Multiple Regression Model from Cited Research Involving Employment

Study	Variables	β	SE β	β
Rochford, Connolly, & Drennan, 2009	<i>Step 1</i>			
	Constant	54.21	11.28	
	Age	-0.42	0.48	-0.11
	Gender	17.84	9.48	0.23
	Residence	0.34	4.51	0.09
	<i>Step 2</i>			
	Constant	75.96	15.11	
	Age	-0.29	0.45	-0.88
	Gender	14.69	8.80	0.19
	Residence	0.71	4.19	0.02
	Hours worked per week	-3.45	1.21	-0.32*

Note $R^2 = 0.05$ for Step 1; $\Delta R^2 = 0.21$ for Step 2

* $p < 0.01$

Dante, Valoppi, Saiani, and Palese (2011) performed a study examining the factors affecting student success with baccalaureate students in Italy. An interview consisting of two open and 18 closed-ended questions was used. There were 117 students who completed the interview. The average age of participants was 23 years. Students working more than 16 hours per week while in school had a higher probability of not graduating than students who worked less (OR = 3.14, CI^{95%} = 1.32-7.49) (Dante, et al., 2011). The negative relationship observed between employment and academic performance or achievement are similar in these studies (Dante, et al., 2011; Rochford, et al., 2009; Salamonson & Andrew, 2006; Salamonson, et al., 2009). It is interesting to note that the significant negative effect occurred when students were working 16 or more hours per week, not less than 16 hours per week.

Race/Ethnicity and Academic Achievement in Nursing Education

None of the published NSPIC studies included race/ethnicity as a variable. One study did include country of origin as a variable (Labrague, et al., 2016). There were statistically significant differences in the means of NSPIC scales between the Philippines and Nigeria (4.21 versus 3.86, $p < 0.01$) and between Greece and Nigeria (4.16 versus 3.86, $p < 0.01$) (Labrague, et al., 2016). Although the researcher did acknowledge that this could be related to cultural differences, there was no further discussion indicating what those differences might be. Interestingly the discussion focused more on curricular differences, varying teaching strategies, and diverse health care systems.

Another interesting finding when considering the NSPIC studies is they were done in different countries. The original study was done in the United States (Wade & Kasper, 2006). Two studies included the four countries of Greece, Nigeria, India, and the Philippines (Labrague, et al., 2015; Labrague, et al., 2016). The other studies were done in Saudi Arabia (Ali, 2012), China (Li, et al., 2013), Iran (Zamanzadeh, et al., 2015), and South Africa (Meyer, et al., 2016). Of the studies that reported sub-scale rankings, three studies ranked instills confidence through caring as the highest sub-scale (Labrague, et al., 2015; Labrague, et al., 2016; & Meyer, et al., 2016), while Ali's (2012) and Zamanzadeh, et al.'s (2015) research found respectful sharing as the highest sub-scale. Control versus flexibility was the lowest ranked in all, except by the juniors in Meyer, et al.'s (2016) study (Ali, 2012; Labrague, et al., 2015; Labrague, et al., 2016; Li, et al., 2013; Zamanzadeh, et al., 2015). One consideration for these differences could be related to culture. The lack of consideration of race/ethnicity demonstrates the need to further study this variable.

In the United States, 34 percent of students enrolled in ADN programs are minorities (National League of Nursing, 2014). Specifically in Oregon, 26 percent of ADN students are minorities (Oregon Center for Nursing, 2016). There is a gap in the nursing education research regarding how ethnicity influences nursing students' perceptions of caring. Additionally, there is minimal research regarding the influence of ethnicity on nursing students' academic success. Although the Salamonson & Andrew (2006) study previously mentioned considered age, ethnicity, and employment, ethnicity was operationalized as non-English speaking at home. Of the 235 second year nursing students who participated in the study, 23% were non-English speaking at home. As indicated in Table 1, this variable was a statistically significant predictor of academic performance in the courses of pathophysiology ($\beta = -0.19$, $t = -3.08$, $p = 0.002$) and nursing practice ($\beta = -0.25$, $t = -3.76$, $p < 0.01$) (Salamonson & Andrew, 2006). This study does not include specific race/ethnicity classifications which greatly limits the generalizability.

A qualitative study compared and contrasted nursing students' perceptions regarding barriers to success between a group of Hispanic/Latino and American Indian students and a group of Anglo students in Spokane (Evans, 2008). Interviews were conducted with 14 Hispanic/Latino and American Indian students (average age of 29), and 18 Anglo students (average age 24). Key findings included Hispanic/Latino and American Indian students were less likely than Anglo students to come from well-educated and professional families, rely on friends for support, and complain about curricular issues. Additionally, Hispanic/Latino and American Indian students were more likely than Anglo students to recognize issues of power and privilege, have family and work obligations, stress the importance of commitments to one's family, desire personal connection and trusting relationships with instructors, and worry more about academic failure (Evans, 2008). This study highlights the need for nursing instructors to consider the

experiences, traditions, and values that are important to students. Instructors must embrace others' worldviews and encourage the exchange of cultural ideas. The findings from this study are consistent with the caring sub-scales of instills confidence, supportive learning climate, appreciation of life's meanings, and respectful sharing.

Ethnic diversity in higher education continues to rise. The National Center for Education Statistics projects minority student enrollment to increase from 2012 to 2023, 25 percent for African-Americans and 34 percent for Hispanic/Latinos (Hussar & Bailey, 2016). Nursing education also needs to experience an increase in minority student enrollment. Diversity in nursing is essential to holistically meet the complex health needs of Americans. As nurse educators are teaching a more diverse student population, more research is needed to understand how race and ethnicity influence students' perceptions of instructor caring.

There is a need to further study nursing students' perceptions of instructor caring. Much of the research performed has been done with BSN students. With 58% of pre-licensure programs being ADN programs (National League for Nursing, 2014), it is especially important to perform this research with this population. Examining age, employment status, and race/ethnicity in relation to ADN students' perceptions of instructor caring may help instructors understand what caring behaviors these more non-traditional students value or perceive as being demonstrated.

Chapter 3

Methodology

Introduction

This quantitative non-experimental survey research addressed ADN students' perceptions of instructor caring. Although caring is a difficult concept to operationalize, there are valid and reliable instruments to measure perceptions of caring. A theory-based measure of caring can be used to provide evidence that may validate the influence of caring practices on outcomes (Watson, 2008).

Research Questions

The research questions for this study were:

1. What is the relationship between nursing student age, employment status, and race/ethnicity with nursing students' perceptions of instructor caring?

Ha: $b_1 \neq 0$, the coefficient of the age slope does not equal 0.

$b_2 \neq 0$, the coefficient of the employment slope does not equal 0.

$b_3 \neq 0$, the coefficient of the race/ethnicity slope does not equal 0.

Ho: $b_1 = 0$, the coefficient of the age slope equals 0.

$b_2 = 0$, the coefficient of the employment slope equals 0.

$b_3 = 0$, the coefficient of the race/ethnicity slope equals 0.

- 1a. Is there a statistically significant difference in nursing students' perceptions of instructor caring by age?

Ha: There is a statistically significant difference in nursing students' perceptions of instructor caring by age.

Ho: There is no statistically significant difference in nursing students' perceptions of

instructor caring by age.

- 1b. Is there a statistically significant difference in nursing students' perceptions of instructor caring by employment category?

Ha: There is a statistically significant difference in nursing students' perceptions of instructor caring by employment category.

Ho: There is no statistically significant difference in nursing students' perceptions of instructor caring by employment category.

- 1c. Is there a statistically significant difference in nursing students' perceptions of instructor caring by race/ethnicity?

Ha: There is a statistically significant difference in nursing students' perceptions of instructor caring by race/ethnicity.

Ho: There is no statistically significant difference in nursing students' perceptions of instructor caring by race/ethnicity.

2. To what extent are the factors on the NSPIC instrument for students' perception of instructor caring related?

Ha: There is a statistically significant relationship between factors on the NSPIC instrument for students' perception of instructor caring.

Ho: There is no statistically significant relationship between factors on the NSPIC instrument for students' perception of instructor caring.

3. What (if they could) would nursing students change about their program faculty's caring behaviors?

Design and Sample

This quantitative study used a non-experimental survey design. Privitera (2017) states that the survey research design is used to quantify, describe, or characterize groups. This was an appropriate design for the study because the researcher used the survey to describe nursing students' perceptions of instructor caring and the relationship between these perceptions and age, employment status, and race/ethnicity. The target population was all second-year students in associate degree nursing (ADN) programs in Oregon. There are approximately 490 students admitted every fall in the 16 ADN programs in Oregon. The convenience sample consisted of fourth quarter nursing students from five ADN programs in Oregon. Fourth term students are in their second and final year of the nursing program, have completed multiple clinical rotations, and may have their idealism about caring and nursing tested (Mackintosh, 2006; Rhodes, et al., 2011). The five nursing schools admit 40 to 80 students in each level annually. The total sampling frame was approximately 230 participants. This convenience sample of participants was used because these five programs are among the largest ADN programs in the state. Additionally, the researcher hoped these larger classes would provide an adequate sample of fourth quarter students. Due to the rigorous and varied schedule of nursing students, the researcher wanted to administer the survey in person instead of via mail or internet. The convenience sample from five schools was a threat to external validity because the sample had minimal generalizability. However, the data could be helpful in developing an initial understanding of ADN students' perceptions of instructor caring and be generalizable to ADN programs within the state with similar demographics.

Instrument

The instrument used was the Nursing Students' Perceptions of Instructor Caring (NSPIC) (Wade & Kasper, 2006). The researcher chose this instrument because it was based on Watson's (2001) Theory of Transpersonal Caring, it is easy to administer, is reliable and valid, and can be completed within 10 to 15 minutes. The 31-item scale contains five factors, or sub-scales, reflecting transpersonal caring in nursing education. The five factors identified in the instrument are: instills confidence, supportive learning climate, appreciation of life's meanings, control versus flexibility, and respectful sharing (Wade & Kasper, 2006).

The overall instrument had a Cronbach's alpha of .97, and the five sub-scales had Cronbach's alphas ranging from .96 to .72 (Wade & Kasper, 2006). Although reliability and validity measures were not statistically strong, each of these measures adds some level of evidence to the overall reliability and validity of the instrument. The instrument does contain both positive and negative items which may decrease the possibility of a response set bias.

Variables

The dependent variable for the research questions was nursing students' perceptions of instructor caring. This was operationalized through the 31 individual NSPIC instrument items that load on one of the five factors. These are: instills confidence, supportive learning climate, appreciation of life's meanings, control versus flexibility, and respectful sharing. The independent variables were age, employment category, and race/ethnicity. The researcher chose these independent variables to begin examining the relationship of factors that might affect ADN nursing students' perceptions of instructor caring. Each was examined as isolated variables in relation to nursing students' perceptions of instructor caring, and as a combined relationship of variables related to nursing students' perception of instructor caring.

Of the two studies using the NSPIC that include age as a variable (Labrague, et al., 2016; Meyer, et al., 2016), only one found a statistically significant relationship between age and students' perception of caring in the control versus flexibility caring factor (Meyer, et al., 2016). The remaining studies that used the NSPIC either did not collect demographic data regarding age, or the average age was less than 22. This average age is more reflective of BSN students than ADN students, who tend to be more non-traditional.

Hill and Christian's (2012) exploratory study suggested that older students prefer competent instructors over personable instructors, and that age is positively correlated with students' perception that instructors have favorites. In Strage's (2008) study, older students more frequently described their ideal professor as organized and flexible, while the traditional age college students described the ideal professor as enthusiastic and funny. Much of the published research involving age of college students as an independent variable examines attrition rates and advising needs, not students' perceptions.

None of the NSPIC studies explored employment as a variable. There are studies, however, that examined the relationship between employment and academic performance in nursing education. These studies found nursing students who worked more than 16 hours per week had decreased academic performance in courses (Rochford, Connolly, & Drennan, 2009; Salamonson & Andrew, 2006; Salamonson, Andrew, & Everett, 2009), and in the overall program (Dante, Valoppi, Saiani, & Palese, 2011). A study by Body, Bonnal, and Giret (2014) examining the relationship between academic achievement and employment hours of college students in France had similar findings of negative effects on overall academic achievement. No studies addressed employment as a variable related to caring perceptions. Students who work may require instructors to provide more care, support, and resources in order to succeed.

Therefore, this researcher examined if nursing students who are employed while in nursing school perceive instructor caring differently than those nursing students who are not employed.

None of the NSPIC studies included race/ethnicity as a variable, however all the additional studies were done in other countries with different cultures. Li, et al. (2013) conducted principal component analysis on the Chinese NSPIC version. The same five sub-scales were identified, accounting for 62.58% of the variance, and all item loadings above 0.40 (Li, et al., 2013). There were some item shifts compared to the original NSPIC, which could be partly related to culture, as well as having a larger sample size.

Approximately 40% of students in higher education are considered non-traditional (Eckel & King, 2004) which may affect student success since these students often juggle school, children, employment, and other life issues and responsibilities (Jeffreys, 2015; Markle, 2015). Examining age, employment, and race/ethnicity in relation to nursing students' perceptions of instructor caring may help instructors understand what caring behaviors these more non-traditional students perceive as being demonstrated. This could help instructors understand the difference between their own perceptions of what caring behaviors they demonstrate and those that students perceive, helping instructors connect better with students through caring moments. Additionally, strategies could be implemented to increase modeling and use of caring behaviors that may be perceived less than others based on student age, employment status, or race/ethnicity. The researcher chose to focus on these three independent variables for the dissertation research. Other variables including marital status, caretaking responsibilities, mental health diagnoses, and full time versus adjunct instructors could be examined in future studies.

Administration of the Instrument

The following steps were implemented:

1. Received permission from the author of the NSPIC to use the instrument.
2. Requested permission from the Deans and Directors of Nursing at the five ADN programs to administer the survey on site at each school with second year students.
3. Obtained IRB approval from George Fox University on October 17, 2017. See Appendix B for the George Fox University IRB proposal.
4. Created an online version of the NSPIC instrument and demographic form and Uploaded into Survey Monkey. See Appendix C for the NSPIC instrument.
5. Pilot-tested the online survey and demographic form. The researcher asked three trusted colleagues to test the survey to insure all questions were visible in the electronic format, that all answers were captured, and that a participant could only complete the survey once.
6. Distributed a flyer in the nursing departments announcing the date and time the students could participate in the survey. Included in the announcement was a request to bring a cell phone or digital device for completing the survey. The flyer was distributed two weeks prior to the survey date.
7. Went to each campus during November. Brought food to provide incentive for students to come learn about completing the survey. Additional incentive to complete the survey was a chance to win one of four \$25 Amazon gift cards by including an email address at the end of the survey. In-person surveys often get more participants to

complete the survey because the researcher is present to explain the survey and answer any questions participants may have (Privitera, 2017).

8. Informed consent was obtained before providing a link for students to complete the survey on their digital devices. See Appendix D for Sample Informed Consent Form.

9. Students were allowed to complete only one survey.

Analysis of Data

The researcher analyzed the data based on the number of completed surveys returned. Although a 75 percent response rate or greater is preferred to minimize bias, Stoop indicates that survey research published in peer-reviewed journals typically has a response rate of less than 50 percent (as cited in Privitera, 2017). Descriptive analysis included means for each item and sub-scale on the NSPIC, as well as standard deviations.

Research question 1. What is the relationship between age, employment status, and race/ethnicity with nursing students' perceptions of instructor caring?

Research question 1a. Is there a statistically significant difference between nursing students' perceptions of instructor caring and age?

Research question 1b. Is there a statistically significant difference between nursing students' perceptions of instructor caring and employment category?

Research question 1c. Is there a statistically significant difference between nursing students' perceptions of instructor caring and race/ethnicity?

Analysis for research question 1, 1a, 1b, and 1c. To analyze all the components of research question 1, and the sub-questions, standard multiple regression was used.

A multiple regression is used to predict a continuous dependent variable based on multiple independent variables....Multiple regression also allows you to determine the

overall fit of the model and the relative contribution of each of the predictors to the total variance explained (Laerd Statistics, 2015a, p. 1).

Multiple regression was used to determine how much of the variation in students' perceptions of instructor caring (dependent variable) is explained by age, employment, and race/ethnicity (independent variables) (Laerd Statistics, 2015). Additionally, multiple regression was used to understand the unique contribution of each of the independent variables towards the explanation of variance (See Table 3 for Overview of Analysis of Data). The model for multiple regression is as follows: $Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + e$. Where b_0 is the sample intercept, b_1 is the sample slope parameter for X_1 (age), b_2 is the sample slope parameter for X_2 (employment category), and b_3 is the sample slope parameter for X_3 (race/ethnicity), and e represents the sample errors/residuals (Laerd Statistics, 2015a). Assumptions for using multiple regression include:

1. Independence of observation
2. Linear relationship between DV and IV's (individually and collectively)
5. Homoscedasticity of residuals (plotting residuals)
3. No multicollinearity (using correlation coefficients and Tolerance/VIF values)
4. No significant outliers (using casewise diagnostics, and checking for leverage points and influential points)
5. Residuals (errors) are normally distributed (using histograms, and P-P plots)

Analysis of research question 2. Multiple correlation was used to analyze research questions 2. Multiple correlation was used to analyze strength and direction of a relationship between variables (Laerd Statistics, 2015b). For this study, multiple correlation was used to examine the structure between the factors of the NSPIC (See Appendix E for NSPIC Instrument

by Scales). Since the sample size was not adequate to perform factor analysis, Cronbach's alpha was used to calculate the internal consistency of each scale. Strength of relationships was determined through inter-item correlation matrices. Additionally, overall fit was examined for the items within each scale using item-total statistics.

Analysis of research question 3. This was an open-ended question on the survey. Themes were extrapolated from comments provided that helped in discussing the quantitative results. Student responses may further highlight instructor caring behaviors that are important to them or lacking in their current instructor. Additionally, comments helped support the quantitative findings and guided the inferences made by the researcher.

Table 3

Overview of Analysis of Data

RQ	Variables	Operationalization	Instrumentation	Statistical Analysis & Assumptions
1	DV: Students' perceptions of instructor caring IV #1: age IV#2: employment category IV#3: Race/ethnicity category	Use of survey to measure students' perceptions of instructor caring Age: continuous variable, state age Employment: Not employed while in school-N; employed while in school-Y Race/ethnicity: Hispanic/Latino, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, Two or more races, Non-resident alien, Unknown, or Resident alien (these will be dummy coded)	31-item NSPIC survey with five sub-scales of: -Instills confidence -Supportive learning climate -Appreciation of life's meanings -Control vs flexibility -Respectful sharing	Standard multiple regression 1.independence of observations 2.linear relationship: DV and IV's collectively-scatterplot; between DV and each IV- partial regression plots 3.homoscedasticity of residuals (plotting residuals) 4.no multicollinearity (using correlation coefficients and Tolerance/VIF values) 5.no significant outliers (using casewise diagnostics, and checking for leverage points and influential points) 6.residuals (errors) are normally distributed (using histograms, P-P plot, and normal Q-Q plot)
2	Students' perceptions of instructor caring Age Employment category Race/Ethnicity category	Same, see above	Same, see above	N/A

Research Ethics

Since this study was a non-experimental survey design with participants self-selecting to participate, there were no risks or negative consequences to the participants, other than loss of time, and potential psychological burden from completing the survey. It was a voluntary survey, and participants could stop at any time. Completing the survey occurred outside of class time, was not tied to any grade, and program instructors or administrators do not have access to any of the individual data. Informed consent was obtained prior to participants completing the survey. Participants were not able to access the survey until they completed the informed consent. Because this research involved human participants, IRB approval was obtained through George Fox University prior to any research being conducted.

Currently the researcher is not an employee of any of the nursing programs selected for the study. Previously the researcher did work at one of the selected nursing programs for eleven years as nursing faculty. The researcher never taught any of the second-year students being surveyed. This researcher was the Academic Coordinator for the students in one of the programs being surveyed, but was not responsible for teaching, evaluating, or grading the students. Although the researcher has a relationship with one of the programs, no individual program results will be shared with any of the specific programs. Survey data will be stored in a secure file on the researcher's computer, and any paper data stored in a secure file, for seven years and then destroyed.

Chapter Four

Results

Introduction

The purpose of this study was to explore ADN students' perceptions of instructor caring, including the relationships between age, employment, and race/ethnicity, to provide insights into the dynamics of the student-instructor relationship regarding caring behaviors. The NSPIC survey was used to explore students' perceptions of instructor caring. This chapter includes the data collected from the NSPIC survey and demographic questions. Data was transferred from Survey Monkey to IBM SPSS Statistics for Macintosh, version 24. The data set was cleaned for 44 variables. All Likert scale variables were transformed from string type data to numeric data. Since the NSPIC survey was a six-point scale, numeric values of -3 to +3 were used for the range of strongly disagree through strongly agree, respectively. Positive statements were coded and negative statements were reverse coded. Scale indices were computed using additive scales. A multiple regression model was used to answer research question one. Correlations were run to answer research question two. Responses to the open-ended question were reviewed and themes developed to answer research question three.

Participants

Second year, fourth-term nursing students from five associate degree nursing programs in Oregon were included in this research. The total number of students in these five programs was 232. On-site survey collection was completed during November 2017. A flyer was emailed to the program chair at each program in mid-October. The program chair emailed the flyer to students via their learning management system (LMS), and posted a flyer on the nursing bulletin

board. A reminder flyer was sent to the program chair the week prior to the survey date which was then emailed out to students via the LMS. Survey data were collected from 161 second-year students, a 69% response rate. Of the 161 students, 152 completed the entire survey, and nine students did not complete various portions. Table 4 shows the statistics for age and cumulative grade point average (CGPA) of participants. The mean age was 30.32 years. This is reflective of non-traditional students. The mean CGPA was 3.4931.

Table 4

Statistics for Age and Cumulative GPA (CGPA)

	Age	CGPA
N	159	153
Mean	30.32	3.49
Median	30.00	3.50
Mode	30	3.00
Standard Deviation	6.82	0.35
Variance	46.55	0.12
Range	34	1.52
Minimum	21	2.50
Maximum	55	4.02

Table 5 shows the statistics for gender, with the majority being female (n=128, 79.5%). This is typical for nursing programs in the United States (National League of Nursing, 2014). Table 6 shows the employment status of participants. The majority of students (72.6%) indicated they worked while in school. This is also reflective of non-traditional students. Table 7 shows the race/ethnicity of participants. The most common race was white at 82.6%.

Table 5

Statistics for Gender

	Frequency	Percent
Male	32	19.9
Female	128	79.5
Unanswered	1	0.6
Total	161	100.0

Table 6

Statistics for Employment Status

	Frequency	Percent
I don't work	43	26.7
1-15 hours per week	61	37.9
16-24 hours per week	40	24.8
25-40 hours per week	14	8.7
>40 hours per week	2	1.2
Unanswered	1	0.6
Total	161	100.0

Table 7

Statistics for Race/Ethnicity

	Frequency	Percent
White	133	82.6
Hispanic/Latino of any race	8	5.0
American Indian or Alaskan Native	0	0.0
Asian	5	3.1
Black or African American	2	1.2
Native Hawaiian or Other Pacific Islander	1	0.6
Two or more races	10	6.2
Non-resident alien	0	0.0
Race/ethnicity unknown	1	0.6
Resident alien/eligible non-citizens	0	0.0
Unanswered	1	0.6
Total	161	100.0

Table 8 shows the mean scores and standard deviations for each scale. Data will be compared to other studies using the NSPIC scale in chapter five.

Table 8

Mean Scores and Standard Deviations for all Scales

	Mean Score	Standard Deviation
Instills confidence through caring	20.72	11.75
Supportive learning climate	16.74	11.46
Appreciation of life's meaning	2.85	4.55
Control versus flexibility	7.07	5.22
Respectful sharing	5.28	3.06
Total NSPIC survey	52.66	30.74

Note: N = 151

Research Question One – Assessed with Multiple Regression

Multiple regression was used to predict students' perceptions of instructor caring for each NSPIC scale, as well as the overall NSPIC survey, based on age, employment status, and race/ethnicity. Additionally, multiple regression was used to determine how much of the variance in students' perceptions of instructor caring was explained by age, employment, and race/ethnicity (Laerd Statistics, 2015a). The eight assumptions required for multiple regression, as indicated by Laerd Statistics (2015a), were tested to ensure valid interpretation (See Appendix F, Assumptions).

Assumptions.

Assumption One – one dependent variable (DV) (continuous). The dependent variable in this study was students' perceptions of instructor caring, measured using the NSPIC survey. Each survey item was measured on a Likert scale. The 31 NSPIC items were also grouped into five caring construct scales per Wade and Kasper's (2006) original study.

Assumption two – two or more independent variable (IVs) (continuous or nominal).

The three independent variables in this study were age (continuous), employment status (nominal), and race/ethnicity (nominal). Cumulative grade point average (CGPA) was also considered as a covariate.

Assumption three – independence of residuals. The Durbin-Watson statistic was used to assess independence of residuals. A Durbin-Watson statistic value near 2 indicates no correlation among residuals (Laerd Statistics, 2015a). There was independence of residuals as assessed by Durbin-Watson statistics for the scales ranging from 1.53 to 2.09.

Assumption four – linearity exists. Scatterplots were assessed to test for linearity between the dependent variable and each independent variable, as well as between the dependent variable and the collective independent variables. All scatterplots demonstrated linearity without obvious curvilinear patterns. Scatterplots can be found in Appendix F.

Assumption five – homoscedasticity of residuals. There was homoscedasticity, as assessed by visual inspection of scatterplots of standardized residuals versus unstandardized predicted values.

Assumption six – no multicollinearity. Assessment of the six correlation tables revealed all correlations less than 0.7, which indicates the independent variables are not highly correlated with each other (Laerd Statistics, 2015a). Additionally, the range of tolerance scores were between 0.90 and 0.99. Tolerance scores less than 0.1 indicate multicollinearity (Laerd Statistics, 2015a), therefore there were no concerns regarding multicollinearity.

Assumption seven – no significant outliers. The Casewise Diagnostics table highlights any cases where the standardized residual is greater than ± 3 standard deviations, which is considered an outlier (Laerd Statistics, 2015a). There were two outliers in the control versus

flexibility scale, no outliers in the appreciate life's meaning scale, and one outlier in each of the remaining scales and overall NSPIC survey. The z-scores for the outliers ranged from -3.09 to -3.83. These outliers represented 1% or less of the 152 participants in each scale, and thus was typical of the expected frequency of observed outliers under normal distribution assumptions. Therefore the data were not removed from the multiple regression model.

Assumption eight – normal distribution of residuals. Histograms for each individual scale and the overall NSPIC survey showed relatively normal distributions. Additionally, P-P plots showed points normally distributed near the diagonal line, however, the points are slightly skewed to the left. Because multiple regression analysis is fairly robust related to deviations from normality, the residuals only need to be relatively normally distributed (Laerd Statistics, 2015a). Therefore the assumption of normality was met. Histograms and P-P plots can be found in Appendix F.

Once all assumptions were met, the multiple regression model was used to determine the relationship of each NSPIC scale with age, employment status, and race/ethnicity. Additionally, multiple regression was used to determine the contribution of each independent variable toward the explanation of variance. Regression coefficients and standard error for each scale can be found in Table 9 (Multiple Regression Models for the Six NSPIC Scales).

Instills confidence through caring – scale one.

The multiple regression model including age, employment status, and race did not statistically significantly predict students' perceptions of instructor caring related to the instills confidence through caring scale, $F(4, 147) = .84, p = .50, \text{adj. } R^2 = -0.01$. There were no significant relationships between the DV and the IVs. Employment and race had negative correlations, while age had a positive correlation with scale one. Case number 98 was an outlier

with a standard residual of -3.37. The model summary indicates that 2.2% of the variance related to scale one (instills confidence through caring) is explained by age, employment status, and race.

Supportive learning climate – scale two.

The multiple regression model including age, employment status, and race did not statistically significantly predict students' perceptions of instructor caring related to the supportive learning climate scale, $F(4, 147) = 1.37, p = .25, \text{adj. } R^2 = 0.01$. There were no significant relationships between the DV and the IVs. Employment had a negative correlation, while age and race had positive correlations with scale two. Case number 44 was an outlier with a standard residual of -3.09. The model summary indicates that 3.6% of the variance related to scale two (supportive learning climate) is explained by age, employment status, and race.

Appreciation of life's meaning – scale three.

The multiple regression model including age, employment status, and race did not statistically significantly predict students' perceptions of instructor caring related to the appreciation of life's meaning scale, $F(4, 147) = .56, p = .69, \text{adj. } R^2 = -0.01$. There were no significant relationships between the DV and the IVs. Employment had a negative correlation, while age and race had positive correlations with scale three. There were no outliers noted with scale three. The model summary indicates that 1.5% of the variance related to scale three (appreciation of life's meaning) is explained by age, employment status, and race.

Control versus flexibility – scale four.

The multiple regression model including age, employment status, and race did not statistically significantly predict students' perceptions of instructor caring related to the control versus flexibility scale, $F(4, 147) = .68, p = .61, \text{adj. } R^2 = -0.01$. There were no significant

relationships between the DV and the IVs. Employment had a negative correlation, while age and race had positive correlations with scale four. Case number 59 and 109 were outliers with standard residuals of -3.38 and -3.55 respectively. The model summary indicates that 1.8% of the variance related to scale four (control versus flexibility) is explained by age, employment status, and race.

Respectful sharing – scale five.

The multiple regression model including age, employment status, and race did not statistically significantly predict students' perceptions of instructor caring related to the respectful sharing scale, $F(4, 147) = .94, p = .44, \text{adj. } R^2 = -0.01$. There were no significant relationships between the DV and the IVs. Employment had a negative correlation, while age and race had positive correlations with scale five. Case number 100 was an outlier with a standard residual of -3.83. The model summary indicates that 2.5% of the variance related to scale five (respectful sharing) is explained by age, employment status, and race.

Overall NSPIC survey – scale six.

The multiple regression model including age, employment status, and race did not statistically significantly predict students' perceptions of instructor caring related to the overall NSPIC survey, $F(4, 147) = .78, p = .54, \text{adj. } R^2 = -0.01$. There were no significant relationships between the DV and the IVs. Employment had a negative correlation, while age and race had positive correlations with scale six. Case number 98 was an outlier with a standard residual of -3.19. The model summary indicates that 2.1% of the variance related to scale six (overall NSPIC survey) is explained by age, employment status, and race.

Table 9

Multiple Regression Models for the Six NSPIC Scales

Variables	<i>B</i>	<i>SE_B</i>	β	Sig.
Instills confidence through caring (constant)	4.87	10.31		0.64
Age	0.17	0.14	0.10	0.22
Employment status	-1.07	2.00	-0.04	0.60
Race/ethnicity	0.01	2.58	0.00	0.99
Overall model: $F(4, 147) = .83, p = .50, \text{adj. } R^2 = -0.01$				
Supportive learning climate (constant)	19.09	9.98		0.06
Age	0.14	0.14	0.08	0.32
Employment status	-3.52	1.94	-0.15	0.07
Race/ethnicity	1.70	2.50	0.06	0.50
Overall model: $F(4, 147) = 1.37, p = .25, \text{adj. } R^2 = 0.01$				
Appreciation of life's meaning (constant)	-0.17	4.01		-0.04
Age	0.05	0.05	0.07	0.83
Employment status	-0.40	0.78	-0.04	-0.51
Race/ethnicity	1.16	1.00	0.10	1.16
Overall model: $F(4, 147) = .56, p = .69, \text{adj. } R^2 = -0.01$				
Control versus flexibility (constant)	11.04	4.59		0.02
Age	0.01	0.06	0.01	0.87
Employment status	-0.85	0.89	-0.08	0.34
Race/ethnicity	0.77	1.15	0.06	0.50
Overall model: $F(4, 147) = .68, p = .61, \text{adj. } R^2 = -0.01$				
Respectful sharing (constant)	1.82	2.68		0.50
Age	0.05	0.04	0.12	0.16
Employment status	-0.51	0.52	-0.08	0.33
Race/ethnicity	0.25	0.67	0.03	0.71
Overall model: $F(4, 147) = .94, p = .44, \text{adj. } R^2 = -0.01$				
Overall NSPIC survey (constant)	36.64	26.99		0.18
Age	0.42	0.37	0.09	0.26
Employment status	-6.34	5.24	-0.10	0.23
Race/ethnicity	3.88	6.75	0.05	0.57
Overall model: $F(4, 147) = .78, p = .54, \text{adj. } R^2 = -0.01$				

Note: *B* = Unstandardized regression coefficient; *SE_B* = Standard error of the coefficient; β = Standardized coefficient

Research Question Two – Assessed with Multiple Correlation

Multiple correlation was used to analyze strength of relationships between the NSPIC scales. Since the sample size did not contain enough participants to perform an exploratory factor analysis, Cronbach's alpha was used to calculate the internal consistency of each scale. A Cronbach's alpha value of 0.7 or higher indicates a good level of internal consistency (Kline, 2005). The item-total statistics were used to examine the fit of the items within each scale (See Table 10, Overall Cronbach's Alpha for each NSPIC Scale). Additionally, strength of relationships was determined through inter-item correlation matrices, and the Pearson's product-moment correlation coefficient reported since all scales were treated as approximately interval measurements. (Laerd Statistics, 2015c). See Appendix G for reliability statistics.

Instills confidence through caring – scale one. There were 11 items measuring the caring construct instills confidence through caring. The scale had a high level of internal consistency, as determined by a Cronbach's alpha of 0.90. Eight of the correlation items related to 'makes me nervous in the clinical environment' were less than 0.30. If this item ('makes me nervous in the clinical environment') were deleted from this scale, item-total statistics indicate the Cronbach's alpha would increase to 0.91. However, the Cronbach's alpha of 0.90 indicated high reliability of all items in this scale. The inter-item correlation matrix indicated most items were moderately correlated, with most correlations ranging from 0.30 – 0.90.

Supportive learning climate – scale two. There were 10 items measuring the caring construct supportive learning climate. The scale had a high level of internal consistency, as determined by a Cronbach's alpha of 0.89. Six of the correlation items related to 'inappropriately discloses personal information about me to others,' and all nine of the correlation items related to 'discourages independent problem solving' were less than 0.30. If either of these items were

deleted from this scale, item-total statistics indicate the Cronbach's alpha would increase slightly. However, the Cronbach's alpha of 0.89 indicated high reliability of all items in this scale. The inter-item correlation matrix indicated most items were moderately correlated, with most correlations ranging from 0.31 – 0.82.

Appreciation of life's meaning – scale three. There were three items measuring the caring construct appreciation of life's meaning. The scale had a high level of internal consistency, as determined by a Cronbach's alpha of 0.84. The item-total statistics indicated the Cronbach's alpha would be 0.86 if 'helps me understand the spiritual dimensions of life' were deleted from this scale. However, the Cronbach's alpha of 0.84 indicated high reliability of all items in this scale. The inter-item correlation matrix indicated all items were moderately correlated, with correlations ranging from 0.56 – 0.76.

Control versus flexibility – scale four. There were four items measuring the caring construct control versus flexibility. The scale had a high level of internal consistency, as determined by a Cronbach's alpha of 0.73. The item-total statistics indicated that the Cronbach's alpha would be lower than 0.73 if any items were dropped. The Cronbach's alpha of 0.73 indicated high reliability of all items in this scale. The inter-item correlation matrix indicated most items were moderately correlated, with all but one correlation ranging from 0.34 – 0.58.

Respectful sharing – scale five. There were three items measuring the caring construct respectful sharing. The scale had a moderate level of internal consistency, as determined by a Cronbach's alpha of 0.56. Both of the correlation items related to 'does not reveal any of his or her personal side' correlated at less than 0.30. The item-total statistics indicated the Cronbach's alpha would be 0.88 if 'does not reveal any of his or her personal side' was deleted from this scale. This item may not have been a good fit for this scale. A scale consisting of three items

may also be a factor. The inter-item correlation matrix indicated two of the items were moderately correlated at 0.79.

Table 10

Overall Cronbach's Alpha for each NSPIC Scale

NSPIC scale	# of items	Cronbach's alpha	# of items effected r/t Cronbach's alpha if item deleted
Instills confidence through caring	11	0.90	1
Supportive learning climate	10	0.89	2
Appreciation of life's meaning	3	0.84	1
Control versus flexibility	4	0.73	0
Respectful sharing	3	0.56	1

Overall NSPIC survey. The NSPIC survey consisted of five scales. A Pearson's product-moment correlation was run to assess the relationships between the scales. Assumptions were met based on the central limit theorem. This theorem explains that as the number of samples in the sampling distribution increases, the sampling distribution of sample means selected at random from the population will result in an approximate normal distribution (Privitera, 2017). There were strong, positive, and statistically significant correlations between all of the scales (See Table 11, NSPIC Scale Correlations). This indicates that the NSPIC survey generally does measure the constructs of caring represented in the five scales, and that the items in each scale measure that particular construct.

Table 11

NSPIC Scale Correlations

NSPIC Scales	ICC	SLC	ALM	CVF	RS
ICC	1.00				
SLC	0.74**	1.00			
ALM	0.53**	0.66**	1.00**		
CVF	0.65**	0.72**	0.52**	1.00	
RS	0.74**	0.69**	0.50**	0.58**	1.00

ICC = Instills confidence through caring; SLC = Supportive learning climate; CVF = Control versus flexibility; RS = Respectful sharing.

** Correlation is significant at the 0.01 level (2-tailed).

Research Question Three – Assessed Using Extrapolated Themes

There was one open-ended question added to the survey tool. “What (if you could) would you like to see this instructor change or do differently related to his/her caring behaviors?” There were 160 narrative comments. Of those, 62 comments indicated nothing could be changed. There were 35 of the 62 comments that indicated “none”, “N/A”, and “nothing”. Additionally, 13 of the 62 comments stated positive general attributes of the instructor, including “good”, “awesome”, “wonderful”, and “caring”. Of the remaining 14 out of 62 comments indicating no changes needed, participants shared specific caring behaviors they appreciated. Consistent themes included the instructor being “supportive” (four comments), demonstrating “caring with patients” (three comments), and providing “feedback” (two comments).

There were 98 comments from participants indicating they would like to see some aspect of their instructors' caring behaviors changed or improved. Common themes included behaviors involving feedback, communication, availability, support, respect, and understanding. The requested caring behaviors listed by participants were matched to the five constructs of the NSPIC scale. Supportive learning climate was the scale most frequently addressed by the

participants' comments. See Table 12 for requested caring behaviors of instructors cross-walked with NSPIC scales.

Table 12

Requested Caring Behaviors of Instructors Crosswalked with NSPIC Scales.

Thematic category	Key terms	# of comments	NSPIC scale(s)
Feedback	Thorough/more/clear/ positive feedback, timely grading	14	ICC SLC
Communication	Communicate expectations, clear expectations, encourage discussion, talk with me, listen, talk, respond, pay attention	13	ICC SLC RS
Availability	Spend time with me, be more available, accessible, make time for me, approachable	9	SLC
Support	Supportive, helps during stressful times	8	SLC
Respect	Respectful, relates, individualized	8	CVF RS
Understanding	Understanding, empathy, demanding, patient	8	CVF RS
Equity	Treat equal, favorites, not fair, same, same work, consistent	5	SLC
Organization	More organized, organization	5	SLC
Professionalism	Unprofessional, laid back	3	SLC
Relational	Relate, share, personal side, personable, get to know me	3	ICC RS
Needs versus tasks	Tasks, focused on tasks	3	CVF
Kindness	Kind	2	ICC

ICC = Instills confidence through caring; SLC = Supportive learning climate; CVF = Control versus flexibility; RS = Respectful sharing.

Chapter Five

Discussion and Conclusions

Introduction

The aim of this study was to explore associate degree nursing (ADN) students' perceptions of instructor caring, including the relationships between age, employment, and race/ethnicity, utilizing the Nursing Students' Perception of Instructor Caring (NSPIC) instrument. Understanding some of the unique needs of students and their perceptions of instructor caring behaviors can help nursing instructors develop and utilize more of these caring behaviors in various interactions with students. Nursing instructors can also better communicate with students regarding the various expressive and technical aspects of caring. This can help build the instructor-student relationship, help students develop their caring efficacy, and potentially help students succeed in nursing school and in the profession.

Discussion of Findings

The following section discusses the study findings related to each research question. The research questions were:

1. What is the relationship between nursing student age, employment status, and race/ethnicity with nursing students' perceptions of instructor caring?
 - 1a. Is there a statistically significant difference in nursing students' perceptions of instructor caring by age?
 - 1b. Is there a statistically significant difference in nursing students' perceptions of instructor caring by employment category?
 - 1c. Is there a statistically significant difference in nursing students' perceptions of instructor caring by race/ethnicity?

2. To what extent are the factors on the NSPIC instrument for students' perceptions of instructor caring related?
3. What (if they could) would nursing students change about their nursing instructors' caring behaviors?

Narrative comments.

I will begin the discussion with the narrative comments, since they were helpful in trying to understand the gaps in the quantitative data. It is interesting to note that the majority of students took the time to write narrative comments at the end of the survey. Students wanted to share their own perceptions, not just complete the standardized instrument. Because the survey was voluntary, students who participated probably had a greater likelihood of having strong opinions, either positive or negative. Having the opportunity to write their own comments to one question may have allowed at least some of the students to share what was most important to them regarding instructor caring. An alternate thought is the 31 statements may have subliminally focused students on specific caring behaviors. If the students would have shared their individual comments before completing the survey, might they have focused on different caring behaviors or would more have left the question blank? Common themes regarding behaviors that students wanted changed or improved included feedback, communication, availability, support, respect, and understanding. The majority of their comments related to the supportive learning climate scale.

Feedback. Feedback was the most common theme. This addressed the instills confidence through caring and supportive learning climate scales which were the two largest scales. One positive comment made by a student that reflects the theme of feedback was "My instructor is great and gives thorough feedback." These comments reflect the value of feedback in developing

student confidence, and providing consistent, supportive input. Nursing instructors have many opportunities to provide feedback. Examples include class discussions, clicker questions, simulation debriefing, skills lab, and clinical experiences. These comments also correlate to students' perceptions of effective instructor behaviors that include evaluation and feedback in multiple studies (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Gillespie, 2002; Rowbotham & Owen, 2015).

Communication. The second theme was overall communication, with 13 individual comments. These comments covered many aspects of communication including providing clear expectations, offering encouragement, and listening. I chose to group them all under the heading of communication to capture the importance of all aspects of communication. This theme addressed three of the NSPIC scales: instills confidence through caring, supportive learning climate, and respectful sharing. One positive comment addressed all three of these scales: "I feel she does a good job communicating with students, providing positive and critical feedback, and encouraging independent problem solving." Comments made by students indicating a desire for improved communication included "Listen with the intent of understanding what is being said," "Be willing to help clarify expected learning for exams and answer more questions and not shame students for not knowing," and "Slow down and spend more time talking to me during clinical." Communication is important for developing presence in the instructor-student relationship (Hughes, 1992).

Availability. The third theme was availability, with nine comments. Availability addressed the supportive learning climate NPSIC scale. Specific student comments representing this theme included, "Spend more time with me in clinical," and "Maybe be more accessible on campus," and "Be more available for students." One positive student statement regarding

availability was “My instructor tries to make time for all of us.” Several studies regarding students’ perceptions of instructor caring behaviors have the instructor-student relationship, connections, and role-modeling as important themes (Beck, 1991; Dillon & Stines, 1996; Hanson & Smith, 1996; Hughes, 1992). Instructors must be available for these types of caring relationships to develop.

Support. The themes of support, respect, and understanding each had eight comments. The theme of support was reflective of the supportive learning climate NSPIC scale. Support was identified through comments such as, “I would like a little more support in the beginning of the term,” and “I think they need to show more support and encouragement.” One positive statement was, “My clinical instructor this term is perhaps the most caring and supportive faculty that I have had thus far in my ADN program.” This relates to several studies that address students’ perceptions of instructor caring as support (Hanson & Smith, 1996; Labrauge, et al., 2016; Labrague, et al., 2015; Livsey, 2009).

Respect. The theme of respect was reflective of the respectful sharing and control versus flexibility NSPIC scales. Respect was identified through comments that included, “Treat everyone respectfully,” and “Treat each student with the same amount of respect.” These comments reflected the respectful sharing scale. The control versus flexibility scale was represented by the student comment, “Be more individualized to their students.” Multiple studies identified respect as an important component of the caring-learning environment (Bankert & Kozel, 2005; Del Prato, et al., 2011; Magnussen & Amundson, 2003). There were no positive comments directed toward the theme of respect.

Understanding. The theme of understanding addressed the control versus flexibility and respectful sharing NSPIC scales. Understanding was identified through comments such as, “Provide a more understanding environment for students,” and “I would like to see more understanding or empathy for students rather than being so rigid and strict on her expectations.” The theme of understanding is also important for a positive, caring instructor-student relationship. This helps promote student caring abilities, and socialization to the profession (Del Prato, 2013, Gillespie, 2002; Labrague et al., 2015; Magnussen & Amundson, 2003; Simonson, 1996).

Age, employment status, and race/ethnicity.

The narrative comments helped highlight students' perceptions related to the variables of age, employment status, and race/ethnicity. Nurses and educators are trained to consider patients and students as unique, holistic individuals. These variables may be factors that nursing instructors take into account when working with their students. The discussion of these variables will incorporate my own experiences, the common themes, and the literature.

Age. An increase in age was associated with an increased perception of caring in each of the scales. In my experience as a nursing instructor, I have worked with many students in their thirties, forties, and fifties. When these students initially begin the program, they have often expressed fears since they have been out of school so long. They've raised concerns about not being able to keep up with younger students. These older students seemed more willing to meet with an instructor to express their concerns. One explanation could be their maturity helped them develop their relationships with instructors early on in the program. Typically, once the first term is well under way, these students realize that they bring a great deal of life experience and wisdom to the program. The six main themes noted from the narrative comments all related to

this scenario. The older student wants the instructor to listen, provide ongoing feedback, be available when needed, share support and encouragement, treat the student as an individual who brings value and unique experiences, and provide understanding and empathy. There was one comment about age: "I believe that I am much closer in age to my instructor than my younger classmates, and I think that is one factor that makes it easy for her to relate to me." The student's comment indicated that being closer in age to her instructor had a positive influence on the instructor-student relationship. This could influence the student's overall perception of instructor caring.

Of the two studies that used the NSPIC survey and included age as a variable (Labrague, et al., 2016; Meyer, et al., 2016), only Meyer, et al. (2016) found a statistically significant relationship between age and students' perception of caring in the control versus flexibility scale. I wonder if greater life experiences, which often come with increasing age, help individuals perceive caring behaviors in others. Strage (2008) found that older students more frequently described their ideal professor as organized and flexible while traditional age college students describe their ideal professor as enthusiastic and funny. Idealism and emotion seem more common in the traditional students' descriptions. Perhaps this idealism and focus on emotion carries over into their perceptions of instructor caring. This could lead to future qualitative research on age and students' perception of instructor caring.

Employment status. As employment hours increased in units (none, 1-15 hours, 16-24 hours, 25+ hours), students' perceptions of instructor caring decreased. Non-traditional students typically need to work more while in school than traditional students. Nursing instructors teaching in community college programs work with a large majority of students who work at least part time. Being aware of this and trying to remain as flexible as possible does not decrease

the rigor and overwhelming time commitment that nursing students experience. Nursing students may have unrealistic expectations of the time commitment and energy required to complete nursing school. The amount of reading, studying, clinical prep, skills practice, and group project work can have a negative effect on a student's ability to work the same number of hours as before nursing school began.

I have been involved in multiple recruiting events, welcome sessions, and student success courses. In all these venues, instructors share about the rigors and huge time commitment of nursing school. Some of the examples I've heard used through the years include "treat nursing school like a full-time job, with overtime," and "the nursing program will be all consuming for two years." One of the first questions an instructor will ask when a student is struggling is, "Can you decrease your work hours?" Students may not perceive these comments as caring. As one participant commented, "Recognize that life situations occur and be more understanding." This type of comment may reflect an inflexible instructor or perhaps unrealistic expectations from a student. Life situations may refer to employment, work-school-home life balance, or other issues. The narrative themes of availability, support, and understanding potentially relate to student employment issues. Students trying to balance school and work may have limited opportunities to meet with instructors. If instructors cannot or will not adjust their schedules, the students may not receive the needed support and feedback needed to be successful.

The negative relationship between caring and employment status is reflective of other studies that found a similar correlation between nursing students who worked more than 16 hours per week and academic performance (Body, et al., 2014; Dante, et al., 2011; Rochford, et al., 2009; Salamonson & Andrew, 2006; Salamonson, et al., 2009). The negative influence of a student's need to work on academic performance may affect a student's perception of how caring

their instructor is. This could influence the student's confidence, belief in the instructor's flexibility, respect, support, appreciation of life's meaning, and overall perception of instructor caring.

Race/ethnicity. The majority of participants were white (82.6%), therefore it was difficult to make interpretations related to this variable. Minority nurses and nursing students are underrepresented across the United States. According to the National League for Nursing (2014), 28% of nursing students identified their race as non-white. This is lower than the national race demographic data published by the United States Census Bureau (2017), indicating that 38.7% of the population identifies their race as non-white. Nursing continues to struggle with admitting students and hiring faculty that reflect the demographics of the population in the United States (National League for Nursing, 2014). This lack of diverse race representation in nursing students could influence those students to feel less cared for. One comment that may represent the student's desire for a caring instructor-student relationship that fosters understanding, support, and flexibility regarding race/ethnicity is:

Spend more time getting to know us, who we are, where we come from, and where we want to go at the beginning of the term so that she has more background on our individual situations going in to the clinical setting of working with us.

I found it interesting that the quantitative results from this survey indicated race/ethnicity types other than white were associated with an increased perception of caring in each of the scales. Most colleges now have various programs to provide additional support to minority students. This may include various financial, social, academic, and employment resources. These supports are typically at the college level, not the program level. None of the programs within this study had designated services within the department for minority students. It may be that

overall college support includes instructor training regarding awareness for the needs of underrepresented students. Nursing as a profession promotes diversity, respect for all individuals, and cultural humility. Another explanation may be that the nursing instructors reflect these nursing values when working with their students.

NSPIC scales.

There were strong, positive, and statistically significant correlations between all of the scales within the NSPIC survey. The students' narrative comments addressed all NSPIC scales except appreciation of life's meaning. When considering the factor structure, there were some statements that, if removed from a scale, would make the scale perform better. I wonder if this is a matter of the item fitting better in a different scale, or a need to reevaluate the factor structure. Discussion regarding each scale will also incorporate individual narrative comments and overall themes.

Instills confidence through caring – scale one. Two of the main themes from student comments represented the instills confidence through caring scale – feedback and communication. These comments included statements such as, “More positive feedback when critiquing,” “Be less intimidating in clinical to foster a less nerve wracking environment”, and “Update me more often on how I am doing throughout the term, instead of just at the end of clinical.” Themes did not focus on stress or anxiety, and most themes related to the supportive learning climate scale. Therefore, the item ‘makes me nervous in the clinical environment’ may be measuring a different caring construct. Students have often told me that they feel nervous around their instructors. An explanation may be that the student's nervousness is perceived by the student as lack of support or lack of feedback by the instructor, instead of an instructor's inability to instill confidence. The narrative comments represent specific behaviors students want

to see that may decrease students' feelings of nervousness. This may indicate that students perceive instructor caring high enough to instill confidence and minimize some of the anxiety, so that learning can occur. Beck (2001) reported that providing a caring environment helps students develop professional and clinical knowledge, skills, and abilities necessary to be successful in nursing. Del Prato's (2013) qualitative study indicated that students felt supported by instructors who provided formative feedback, and conveyed belief in their abilities. Additionally, this relates to multiple studies regarding students' perceptions of the importance of instructor feedback and evaluation on teacher effectiveness (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Gillespie, 2002; Rowbotham & Owen, 2015).

Another consideration relates to Cook's (2005) study examining the relationship between nursing students' perceptions of inviting teaching behaviors and students' anxiety. Although students had varying levels of anxiety and nervousness, all students rated their instructors as having high levels of inviting behaviors. These behaviors included core concepts of respect, trust, care, optimism, and intentionality. The concepts of optimism and intentionality could apply to both caring constructs of instilling confidence or providing support. The overlap between instilling confidence and providing support in these studies may indicate the item would better fit in scale two. Additionally, the themes of feedback, communication, availability, support, respect, and understanding are all important components for instilling confidence, as well as providing a supportive learning climate.

Supportive learning climate – scale two. The majority of the main themes from student comments related to the supportive learning climate scale. Two items in this scale, however, may fit better in different scales. 'Inappropriately discloses personal information about me to others' may be measuring the caring construct of respectful sharing due to the need to exhibit trust and

care, and honor one another as components of a respectful, sharing relationship. One comment that captures this item was, "They have talked behind our backs and about us to other cohorts and students." The development of a helping-trusting relationship is one of Watson's (1991) carative factors. This involves building a relationship that incorporates trust, honesty, openness, authenticity, and encouragement. In a study by Grams, et al. (1997), students stated that creating trust was integral to caring. If an instructor inappropriately shares personal information about a student to others, that particular student, and possibly other students, will potentially lose trust in, and respect for that instructor. Inappropriate disclosures may negatively affect the instructor-student relationship because it is disrespectful, and considered a form of instructor to student incivility (Clark, 2008). Del Prato's (2013) study on the lived experiences of ADN students found that instructor incivility led students to be disillusioned about nursing as a caring profession.

The item 'discourages independent problem solving' was not a good fit with scale two. One student shared this positive comment: "I feel she does a good job communicating with students, providing positive and critical feedback, and encouraging independent problem solving." Helping students utilize the nursing process and develop clinical decision making skills are examples of problem solving within nursing. Another student made the general comment, "Be more patient." Although this can mean many things, if a nursing instructor becomes impatient with a student during clinical, often the instructor will step in and take over. This may mean the instructor finishes performing a skill, solving a problem, or answering a question. Sometimes due to lack of experience, new nursing instructors give answers to the students without allowing the students to work through the issue. This may also relate to poor role modeling by the instructor. Often when the instructor takes over, the student will disengage from

the learning and lose confidence (Gaberson, Oermann, & Shellenbarger, 2015). 'Discourages independent problem solving' may be an item less about support and more about control or instilling confidence.

Appreciation of life's meaning – scale three. The students' narrative comments did not address the items in the appreciation of life's meaning scale. This was also the lowest ranked scale overall. Nursing students are taught to provide holistic care, which includes physical, psychological, social, and spiritual components (items 28 and 29). Additionally, it is important for nursing instructors to connect what the students are learning to the students' own life experiences (item 27). One explanation could be that there are not enough items in the scale to adequately measure this construct of caring. An alternate explanation could be that this is the least important of the scales for students at this time. These three items may be perceived less because the students are heavily focused on the knowledge, skills, and abilities they must learn and master in order to be successful in the nursing program. This scale represents more of the expressive side of caring, while students may be more focused on the technical aspects of caring.

I was surprised that the Cronbach's alpha for this scale would be higher if 'helps me understand the spiritual dimensions of life' was removed. This item seems to fit the scale and represents a potentially more holistic view. One explanation may be that all participants were from secular institutions. Possibly many of these students or their instructors do not consider spirituality as uniquely important. Another explanation may be students incorporated spirituality as a component within the other two items of this scale. With only three items in this scale, does it accurately represent this caring construct? Could these three items fit better in instills confidence through caring or supportive learning climate?

Control versus flexibility – scale four. All items in this scale were negatively worded, and covered a broad range of controlling behaviors that addressed personal needs, time, class, homework, clinical, and grades. Narrative comments related to this scale included themes of understanding and respect. Comments that could represent this scale included “Drop the fixation on morning bed baths,” “I would like to see this instructor focus a little more on the specific patient’s needs rather than having us in the clinical group focus solely on our tasks,” and “Recognize that life situations occur and be more understanding.” The four items in this scale could also represent negatively worded statements for supportive learning climate. This scale only had four items. It may not have enough items to adequately assess this caring construct.

Respectful sharing – scale five. Student comments that represent this scale included “Maybe be a little more personable. Let us in on her life a little, and show interest in ours,” “More caring and warmth and less bitterness and cold demeanor,” and “Relate to us on a more personal level and share some of her experiences with us.” These comments relate to the themes of communication, respect, and understanding. I was surprised by the low correlations with ‘does not reveal any of his or her personal side.’ This item seems to align with the instructor-student relationship and feelings of belonging. One of the key themes from Beck’s (1991) study regarding students’ perceptions of caring interactions with nursing instructors was sharing of selves. Hanson and Smith’s (1996) study describing instructor-student caring interactions included the theme of connection. Beck’s (2001) meta-analysis of caring in nursing education included themes of presencing and sharing. This scale also had only three items.

Overall NSPIC instrument. The NSPIC instrument consisted of five scales. The strong, positive, and statistically significant correlations between all of the scales (See Table 9) indicated this study measured the same five constructs of caring as the original NSPIC survey by Wade

and Kasper (2006). Although construct and content validity were confirmed, a larger sample and exploratory factor analysis may lead to modifications of the NSPIC instrument. Three of the five scales had four or fewer items. Privitera (2017) noted that content validity is reflected by the extent to which an appropriate number of items are used to represent the construct. Do three and four item scales adequately reflect all of the features of those caring constructs? Should those scales be expanded, would the items within these scales fit better in different scales, or might the NSPIC instrument be missing a key scale that would better represent the carative factors?

NSPIC scales ranked. Since most of the studies that used the NSPIC instrument stated the highest and lowest ranked scales, I wanted to include this data in my study as well (Refer to Table 13, NSPIC scales ranked by means). This ranking is another method to determine similarities and differences between the studies. In this study, the highest ranked scale was instills confidence through caring. This is similar to the studies of Labrague, et al. (2015), Labrague, et al. (2016), and Meyer, et al. (2016). The narrative themes relating to this scale included feedback, communication, relational, and kindness. The second highest ranked scale was respectful sharing. This was the highest ranked scale in two of the studies (Ali, 2012; Zamanzadeh, et al., 2015). The narrative themes relating to this scale included communication, respect, understanding, and relational. Control versus flexibility was the third highest ranked scale in this study. It consisted of all negatively worded items. It is unfortunate that students perceive their instructors behaviors as more controlling than caring related to support and appreciation of life's meaning. Several studies found control versus flexibility as the lowest ranked scale (Ali, 2012; Labrague, et al., 2015; Labrague, et al., 2016; Zamanzadeh, et al., 2015). Magnussen and Amundson (2003) discussed students' perception of nursing instructors as rigid and uncaring, which also reflects the lower ranking of this scale. The narrative themes relating to

this scale included respect, understanding, and need versus task. The fourth ranked scale was supportive learning climate. This was the scale most often represented by students' narrative comments. These comments related to the themes of feedback, communication, availability, support, equity, organization, and professionalism. An explanation could be that the majority of students want more support from instructors or value support more highly than other caring behaviors.

The lowest ranked scale was appreciation of life's meaning. This was similar to Meyer, et al. (2016) related to junior nursing students. As discussed earlier, this was a three item scale with one item with poor correlations. Although spirituality does not simply mean religion, might students have interpreted the statement as such, or might there be a lack of education from instructors regarding spirituality? Another consideration is more items are needed to analyze this caring construct. None of the narrative themes related to this scale.

Table 13

NSPIC Scales Ranked by Means

NSPIC Scale	Mean Scale Score	Mean Item Score	Ranking
Instills confidence through caring	20.72	1.84	1
Supportive learning climate	16.74	1.63	4
Appreciation of life's meaning	2.85	0.94	5
Control versus flexibility	7.07	1.68	3
Respectful sharing	5.28	1.71	2

Note: N = 151

Implications

Nursing instructors. There are implications for nursing instructors based on the results of this study. Students are individuals with various learning styles, life experiences, and preferences. It is important for nursing instructors to be flexible and consider the needs of each student and each class. For example, instructors can ask for ongoing feedback, consider having

students complete learning style inventories, or meet one on one with students in their clinical group. Although it is not possible to meet every student request, instructors can review feedback trends, vary teaching methods to address all learning styles, and implement changes when possible. These are various examples of role modeling instructor caring. This can help build the instructor-student relationship, develop trust, demonstrate flexibility, and show support.

With control versus flexibility being the third highest ranked scale, it appears controlling behaviors may be perceived more than the caring behaviors related to flexibility. Although there are many areas within nursing education where instructors must maintain rigid standards to protect student and patient safety, there are ways to demonstrate less control and greater flexibility. Allowing students to have input in some of the decisions related to a course is one broad example, and reflects sharing power. This is a key component of learner-centered teaching (Doyle, 2011). Sharing power could include allowing students to help develop course policies, set due dates, or determine acceptable topics for papers and projects. Additionally, it could include having students participate in developing specific learning outcomes, rubrics for peer evaluation, and discussion guidelines.

Another implication for instructors is being aware that students' ratings of instructors' caring behaviors were generally only slightly to moderately agrees. With caring being a core component of nursing, I would have anticipated higher scores. Are instructors effective caring role models? Do these ratings indicate decreased instructor caring or possibly students realizing a greater level of autonomy? Regardless, I believe this is an area needing thoughtful consideration by nursing instructors who are supposed to be representing a caring, holistic, and inclusive profession. Nursing students partly learn caring from their instructors (Labrague, et al., 2016; Tanner, 1990; Wade & Kasper, 2006). If the students don't perceive strong caring behaviors

from their instructors, how are their examples influencing students' caring abilities and caring self-efficacy? Nursing is a caring profession, which includes competence, interpersonal sensitivity, and intimate relationships (Finfgeld-Connett, 2007; Watson, 1991). Nursing instructors need to incorporate all aspects of caring to effectively role model caring and develop the instructor-student relationship. Literature supports that positive role modeling and caring can help students actualize their caring ideals, and develop socialization to the profession (Beck, 1991; Grams, et al., 1997; Price, 2008; Tang, 2005; Valiee, et al., 2016; Ware, 2008).

Considering the negative influence employment had on students' caring perceptions, instructors could incorporate more intentional behaviors to demonstrate care, support, and flexibility. Examples include increasing the use of audio or video streamed lectures to post on the learning management system so students could access this content multiple times, and when most convenient. Instructors could potentially increase availability by including virtual office hours in the evenings or offering phone or video conferencing at various times. These are just a few examples of how instructors could demonstrate care through listening more, increasing availability, providing greater flexibility, and offering feedback. These behaviors address the key themes expressed in the narrative comments by the students, and might help reinforce support, develop respect and understanding, and increase positive communication.

Nurse administrators. These same implications relate to nurse administrators as well. The administrators must lead by example and demonstrate these caring behaviors with students and faculty alike. Additionally, the literature shows that perceptions of nursing instructor caring and behaviors of positive teaching and teaching effectiveness in nursing are similar (Beck, 1991; Cook, 2005; Grams, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016). Administrators can advocate for support and care for students by including new hire orientation and professional

development topics for faculty regarding evidence based teaching practices such as learner-centered teaching, providing effective feedback, and universal course design. Often new nurse educators are expert bedside nurses with little or no educational training. Many programs grow their own instructors through mentoring. Often in the first few years of teaching, novice nursing instructors become overly focused on technical aspects of student learning, such as performance of tasks and skills. This could lead to a decreased demonstration of caring and thus their caring behaviors are perceived less. There were a couple student comments that addressed this very issue: "She was a brand new instructor. She was pretty good but during the first review she made me feel like I wasn't going to pass. She made me feel stupid for my opinion," and "My instructor is new this year. It will take time for them to get into a groove."

Administrators could also reinforce the importance of caring in nursing by including specific items regarding instructor caring on course evaluations. This may help improve instructor awareness of students' views of instructor caring behaviors. Increasing awareness could lead to individual as well as program wide improvements. Improving caring interactions between instructors and students could increase students' caring self-efficacy as future nurses.

Limitations

As with all research, this study had several limitations. One limitation was the sample size. This was a large enough sample size to make the study generalizable to similar nursing programs; however, it was a convenience sample of schools in Oregon. With a larger sample size, an exploratory factor analysis could have been performed on the NSPIC instrument. An increased sample size from various regions of the country might also provide more diversity in the race/ethnicity of the participants. The lack of diverse participants limited the ability to generalize the data related to race/ethnicity.

Another limitation was the fact that multiple variables may influence a student's perception of instructor caring. This study considered the three factors of age, employment status, and race/ethnicity. These factors did not statistically significantly predict students' perceptions of instructor caring. Other factors, not included in this study, may have greater influence.

Additionally, this was a self-report survey. Data were based on students' perceptions which are complex and multifaceted. Perceptions can also vary based on a student's most recent experience with an instructor. One extremely negative or positive interaction could have influenced the student's overall perception.

Suggestions for Future Research

Areas for future research include conducting an exploratory factor analysis, using a national sample, and exploring additional independent variables and other relationships. First, an exploratory factor analysis could be performed. The NSPIC instrument has value in providing quantitative measures of nursing students' perceptions of instructor caring. It has been used in five published studies which add to the validity and reliability of the instrument. Findings from this study make me want to further study the instrument. Research with larger samples would allow more opportunities to test the reliability and validity of this tool, including further analyzing the factor structure.

Second, conducting research using a national sample could help evaluate the relationship of race/ethnicity on students' perceptions of instructor caring. This current study did not have a diverse enough sample to adequately evaluate race/ethnicity as an independent variable. Additionally, a larger sample would help make findings more generalizable.

A third area for future research would be to explore other independent variables and their relationships with students' perceptions of instructor caring. These could include full time versus part time instructors, first year versus second year students, urban versus rural programs, nursing accredited programs versus state accredited programs, and ADN versus BSN student perceptions.

Another area for future research would be to explore students' perception of their own caring self-efficacy and its relationship to their perceptions of instructor caring. This particular research could be done as a longitudinal study that examines students' caring self-efficacy and perceptions of instructor caring throughout their time in the program and into their first year as a professional nurse.

Conclusions

The mean student perception of instructor caring for each scale was less than two, indicating slightly to moderately agree to all scales except appreciation of life's meaning. This scale had a mean score indicating slightly disagree to slightly agree. Nursing is a caring, holistic profession, but the data do not indicate that nursing instructors are strong role models of caring as perceived by their students. Nursing instructors must be leaders for the profession. Instructors' actions toward students can ultimately effect patient outcomes as students become professional nurses.

I found it interesting that students were willing to go beyond completing the survey instrument, and wanted to write additional comments. The majority of these comments related to the supportive learning climate scale, which was ranked fourth overall. Themes included feedback, communication, availability, and support. These comments are opportunities for nursing instructors and administrators to begin discussions around developing tangible examples

that can be implemented to better model caring and represent a supportive learning climate. I understand that not every suggestion or comment is appropriate to implement, and every program has a unique culture. However, in our high tech health care environment, this study and these comments may be an opportunity to rekindle the discussion regarding caring in nursing education.

The negative relationship between employment status and all NSPIC scales should be an impetus to create further discussions among nursing faculty, administrators, and advisors regarding students who are working. Questions to be considered include what concerns are being expressed by these students, how can instructors increase flexibility and availability, and how can support be demonstrated? Nursing education must continue to work to provide a more diverse nursing workforce that reflects our population. This includes care and support of the increasing number of students who must work, as well as other non-traditional students, in order to help more of these students succeed and enter the profession.

The student comments I have heard, and others have shared with me through the years, regarding negative instructor behaviors are still disturbing. Regardless, I also have a sense of hope. This study has helped to identify areas of instructor caring that students perceived as lacking, specific behaviors and themes that can be addressed, and potential examples of evidence based teaching practices that may also assist in demonstrating caring. Increasing perceived instructor caring and support through positive instructor behaviors, quality teaching, and role modeling can lead to student success, including greater caring self-efficacy, and socialization to the professional role (Livsey, 2009; Rowbothan & Owen, 2015; Shelton, 2003; Shelton, 2012). Nursing instructors must care for their students, so they in turn can care for their patients.

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&db=c8h&AN=105540618&scope=site](https://georgefox.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=c8h&AN=105540618&scope=site)

Appendices

Appendix A

Crosswalk of the five subscales of NSPIC, the ten carative factors, and instructor caring behaviors as cited in the literature

NSPIC Five Subscales (Wade & Kasper, 2006)	Ten Carative Factors (Watson, 2001)	Instructor caring behaviors
Instills confidence	2, 4, 5, 6, 7, 9, 10	Instilling/conveying confidence (Beck, 2001; Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Hanson & Smith, 1996; Labrague, et al., 2016; Rowbotham & Owen, 2015; Tang, et al., 2005) Developing trust (Cook, 2005; Hanson & Smith, 1996; Hughes, 1992; Li, et al., 2013; Rhodes, et al., 2011)
Supportive learning climate	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Developing trust (Cook, 2005; Hanson & Smith, 1996; Hughes, 1992; Li, et al., 2013; Rhodes, et al., 2011) Creating a respectful and supportive learning climate (Beck, 2001; Simonson, 1996) Respecting students (Elcigil & Sari, 2008; Gignac-Caille & Oermann, 2001; Rowbotham & Owen, 2015; Tang, et al., 2005)
Appreciation of life's meanings	2, 3, 5, 10	Sharing of self (Beck, 1991; Dillon & Stines, 1996; Grams, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016)
Control versus flexibility	1, 3, 4, 7, 9, 10	Creating a respectful and supportive learning climate (Beck, 2001; Simonson, 1996)
Respectful sharing	2, 3, 4, 5, 6, 7, 10	Sharing of self (Beck, 1991; Dillon & Stines, 1996; Grams, et al., 1997; Tang, et al., 2005; Valiee, et al., 2016)

Ten Carative Factors:

1. The formation of a humanistic-altruistic system of values. This includes practicing acts of kindness.
2. The installation of faith-hope. This includes being authentically present and honoring others.
3. The cultivation of sensitivity to one's self and to others. This implies being sensitive to self and others by understanding individual beliefs and practices.
4. The development of a helping-trusting, authentic relationship.

5. The promotion and acceptance of the expression of positive and negative feelings. This includes authentic and active listening, as well as encouraging reflection.
6. The systematic use of the scientific problem-solving method for decision making. This includes utilizing critical thinking, along with the art and science of nursing, and one's own experiences in the plan of care for others.
7. The promotion of interpersonal teaching-learning. This is a shared, collaborative experience that incorporates individual needs and learning styles.
8. The provision for a supportive, protective and/or corrective mental, physical, socio-cultural, and spiritual environment. This involves creating a healing environment on all levels.
9. Assistance with the gratification of human needs, including physical, emotional, and spiritual needs.
10. The allowance for existential-phenomenological forces. This includes slowing down and allowing space for unexpected wonder and miracles to happen.

Appendix B

George Fox University IRB Proposal

Informed Consent

RESEARCH SUBJECT INFORMED CONSENT FORM

Prospective Research Subject: Read this consent form carefully and ask as many questions as you like before you decide whether you want to participate in this research study. You are free to ask questions at any time before, during, or after your participation in this research.

Project Information

Project Title: Associate Degree Nursing Students' Perception of Instructor Caring and the Influence of Age, Employment, and Ethnicity	Project Number:
Site IRB Number:	Sponsor: George Fox University Doctor of Education Program
Principal Investigator: Pamela Fifer	Organization: George Fox University
Location: Newberg, OR	Phone: 503-510-7712
Other Investigators: Dane Joseph (Chair)	Organization: George Fox University
Location: Newberg, OR	Phone: 503-554-2855

1. PURPOSE OF THIS RESEARCH STUDY

- The purpose of this research is to explore associate degree nursing (ADN) students' perceptions of instructor caring, and the relationships between age, employment, and race/ethnicity categories between these students' perceptions.

2. PROCEDURES

- Participants will be asked to complete some basic demographic information and complete a 31-item survey. This should take approximately 15 minutes.
- This is a strictly voluntary, non-experimental survey.

- The principal investigator will be present during survey completion in case you have any questions.

3. *POSSIBLE RISKS OR DISCOMFORT*

- The minimal risk for participating is loss of time.
- This survey is not related to any nursing course and no grade will be assigned for completing or not completing the survey.
- Typical psychological burden from completing the survey.

4. *OWNERSHIP AND DOCUMENTATION OF SPECIMENS*

- All survey data will be stored on a secure flash drive and housed in the principal investigator's office in a locked file drawer for seven years and then destroyed.

5. *POSSIBLE BENEFITS*

- The results of this research may benefit future nursing students and nurse educators. Understanding what behaviors demonstrate caring to students can help nurse educators develop and utilize more of these behaviors in interactions with students. This may help develop the instructor-student relationship, and potentially help students succeed in nursing school and in the profession.

6. *FINANCIAL CONSIDERATIONS*

- There is no financial compensation for your participation in this research. After completing the survey, participants are eligible to enter into a drawing for one of four \$25 Amazon gift cards by giving their email address if they choose.

7. *CONFIDENTIALITY*

- Participant's identity in this study will be treated as confidential. The results of the study may be published for scientific purposes but will not give individual names or include any identifiable references to individual schools or participants.

However, any records or data obtained as a result of your participation in this study may be inspected by the sponsor, by any relevant governmental agency (e.g., U.S. Department of Energy), by the George Fox University Institutional Review Board, or by the persons conducting this study, (provided that such inspectors are legally obligated to protect any identifiable information from public disclosure, except where disclosure is otherwise required by law or a court of competent jurisdiction. These records will be kept private in so far as permitted by law.)

To ensure confidentiality, no names will be attached with the survey data.

8. *TERMINATION OF RESEARCH STUDY*

- Participants have the right to refuse to participate or to withdraw from the study at any point during the survey completion without penalty, up until results are published.

9. AVAILABLE SOURCES OF INFORMATION

- Any further questions you have about this study will be answered by the Principal Investigator: Pamela Fifer

Phone Number: 503-510-7712

- Any questions you may have about your rights as a research subject will be answered by:

Pamela Fifer, MS, RN, CNE
pfifer@georgefox.edu
503-510-7712 or

Dane Joseph, PhD
djoseph@georgefox.edu
503-554-2855

10. AUTHORIZATION

I have read and understand this consent form, and I volunteer to participate in this research study. I understand that I will receive a copy of this form. I voluntarily choose to participate, but I understand that my consent does not take away any legal rights in the case of negligence or other legal fault of anyone who is involved in this study. I further understand that nothing in this consent form is intended to replace any applicable Federal, state, or local laws.

Participant Name (Printed or Typed):

Date:

Participant Signature:

Date:

Principal Investigator Signature:

Date:

Signature of Person Obtaining Consent:

Date:

Appendix C

Nursing Students' Perceptions of Instructor Caring (NSPIC) Instrument (Wade & Kasper, 2006)

Instructions: When you are completing these items, think of your current clinical instructor. Circle the number that best expresses your opinion.						
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
My instructor:						
1. Shows genuine interest in patients and their care.	1	2	3	4	5	6
2. Displays kindness to me and others.	1	2	3	4	5	6
3. Instills in me a sense of hopefulness for the future.	1	2	3	4	5	6
4. Makes me feel that I can be successful.	1	2	3	4	5	6
5. Helps me envision myself as a professional nurse.	1	2	3	4	5	6
6. Makes me feel like a failure.	1	2	3	4	5	6
7. Does not believe in me.	1	2	3	4	5	6
8. Cares about me as a person.	1	2	3	4	5	6
9. Respects me as an unique individual.	1	2	3	4	5	6
10. Is attentive to me when we communicate.	1	2	3	4	5	6
11. Inappropriately discloses personal information about me to others.	1	2	3	4	5	6
12. Does not reveal any of his or her personal side.	1	2	3	4	5	6
13. Acknowledges his or her own limitations or mistakes.	1	2	3	4	5	6
14. Makes himself or herself available to me.	1	2	3	4	5	6
15. Clearly communicates his or her expectations.	1	2	3	4	5	6
16. Serves as a trusted resource for personal problem solving.	1	2	3	4	5	6
17. Offers support during stressful times.	1	2	3	4	5	6
18. Accepts my negative feelings, while helping me to see the positive.	1	2	3	4	5	6
19. Allows me to express my true feelings.	1	2	3	4	5	6
20. Discourages independent problem solving.	1	2	3	4	5	6
21. Inspires me to continue my knowledge and skill development	1	2	3	4	5	6
22. Makes me nervous in the clinical environment.	1	2	3	4	5	6
23. Does not trust my judgment in the clinical lab environment.	1	2	3	4	5	6
24. Seems caught up in his or her own priorities, rather than responding to my needs.	1	2	3	4	5	6
25. Makes demands on my time that interfere with my basic personal needs.	1	2	3	4	5	6
26. Focuses on completion of patient care tasks, rather than the patient's needs.	1	2	3	4	5	6
27. Helps me find personal meaning in my experiences.	1	2	3	4	5	6
28. Encourages me to see others' perspectives about life.	1	2	3	4	5	6
29. Helps me understand the spiritual dimensions of life.	1	2	3	4	5	6
30. Is inflexible when faced with unexpected situations (happenings)	1	2	3	4	5	6
31. Uses grades to maintain control of students.	1	2	3	4	5	6

Permission to use the NSPIC instrument obtained from Dr. Wade, December 6, 2016

Appendix D

Sample Informed Consent Form

Title of Study: The Influence of Age, Employment, and Ethnicity on Associate Degree Nursing Students' Perception of Instructor Caring

Funding Source: None

IRB Approval: October 17, 2017

Principal Researcher: Pamela Fifer, MS, RN, CNE, pfifer@georgefox.edu

Dissertation Chair/Other Investigator: Dr. Dane Joseph, PhD, djoseph@georgefox.edu

Description of the Study: Pamela Fifer is a doctoral candidate at George Fox University completing this research in partial fulfillment of the requirements for a Doctor of Education degree. The purpose of this research is to explore associate degree nursing (ADN) students' perceptions of instructor caring, and the relationships between age, employment status, and race/ethnicity between these students' perceptions. The study focuses on the perception of nursing students enrolled in four ADN programs in Oregon.

If you agree to participate, you will complete a survey consisting of questions developed by Wade & Kasper (2006) intended to measure nursing students' perception of instructor caring. Additionally, there will be a few demographic questions to be used during data analysis. The data from the survey will be statistically analyzed in an effort to explore correlations between perceived caring behaviors and determine if there are relationships between students' perceptions of instructor caring and age and employment. The survey will take approximately ten to fifteen minutes to complete. The survey is not related to any nursing course, and no grade will be assigned for completing or not completing the survey. You will not include your name on this survey.

Risks/Benefits to the Participant: Your responses will contribute to a better understanding of students' perception of instructor caring. There may be minimal risk involved in participating in this study, such as loss of time, or typical psychological burden from completing the survey. Your email address will be collected only if you want to enter in to the random drawing for one of four \$25 Amazon gift cards. Understanding what behaviors demonstrate caring to students can help nurse educators develop and utilize more of these behaviors in interactions with students. This may help develop the instructor-student relationship, and potentially help students succeed in nursing school and in the profession. If you have any questions or concerns regarding the risks/benefits of participating in this study, you may ask the principal investigator.

Cost and Payment to the Participants: There is no cost if you choose to participate in this research study. Participation is voluntary and no payment will be provided, although there is a chance to win one of four \$25 Amazon gift cards through a random drawing. An additional incentive being offered is free food provided by the researcher. Partaking of the food is voluntary.

Confidentiality: All results from this study will be kept strictly confidential. All data will be stored on a secured flash drive and housed in the principal investigator's office in a locked file drawer. No specific school names will be used in the reporting of results, whether in publication or conference presentation. Course instructors, department chairs, or program deans will not know the names of those who participate. Your email will only be used for communicating with winners of the random drawing for the Amazon gift cards.

Participant's Right to Withdraw from the Study: You have the right to refuse to participate or withdraw from the study at any point during the survey, up until results are published. Data will always remain de-identified.

I have read and fully understand this letter. If I have any questions, I will ask the primary investigator prior to participation so that any further questions regarding this study or my participation in it can be answered. I understand that by completing this survey, I am giving my consent to participate in this study. If you elect to participate, please click on this link to access the survey:

<https://www.surveymonkey.com/r/PamsNSPIC>

Appendix E

NSPIC Instrument by Scale

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
My instructor:						
Instills confidence through caring						
1. Shows genuine interest in patients and their care.	1	2	3	4	5	6
2. Displays kindness to me and others.	1	2	3	4	5	6
3. Instills in me a sense of hopefulness for the future.	1	2	3	4	5	6
4. Makes me feel that I can be successful.	1	2	3	4	5	6
5. Helps me envision myself as a professional nurse.	1	2	3	4	5	6
6. Makes me feel like a failure.	1	2	3	4	5	6
7. Does not believe in me.	1	2	3	4	5	6
8. Cares about me as a person.	1	2	3	4	5	6
21. Inspires me to continue my knowledge and skill development	1	2	3	4	5	6
22. Makes me nervous in the clinical environment.	1	2	3	4	5	6
23. Does not trust my judgment in the clinical lab environment.	1	2	3	4	5	6
Supportive learning climate						
11. Inappropriately discloses personal information about me to others.	1	2	3	4	5	6
13. Acknowledges his or her own limitations or mistakes.	1	2	3	4	5	6
14. Makes himself or herself available to me.	1	2	3	4	5	6
15. Clearly communicates his or her expectations.	1	2	3	4	5	6
16. Serves as a trusted resource for personal problem solving.	1	2	3	4	5	6
17. Offers support during stressful times.	1	2	3	4	5	6
18. Accepts my negative feelings, while helping me to see the positive.	1	2	3	4	5	6
19. Allows me to express my true feelings.	1	2	3	4	5	6
20. Discourages independent problem solving.	1	2	3	4	5	6
24. Seems caught up in his or her own priorities, rather than responding to my needs.	1	2	3	4	5	6
Appreciation of life's meaning						
27. Helps me find personal meaning in my experiences.	1	2	3	4	5	6
28. Encourages me to see others' perspectives about life.	1	2	3	4	5	6
29. Helps me understand the spiritual dimensions of life.	1	2	3	4	5	6
Control versus flexibility						
25. Makes demands on my time that interfere with my basic personal needs.	1	2	3	4	5	6
26. Focuses on completion of patient care tasks, rather than the patient's needs.	1	2	3	4	5	6
30. Is inflexible when faced with unexpected situations (happenings)	1	2	3	4	5	6
31. Uses grades to maintain control of students.	1	2	3	4	5	6
Respectful sharing						
9. Respects me as an unique individual.	1	2	3	4	5	6
10. Is attentive to me when we communicate.	1	2	3	4	5	6
12. Does not reveal any of his or her personal side.	1	2	3	4	5	6

Appendix F

Assumptions

Table F1

Model Summary of Each Scale (Durbin-Watson Statistic)

Scale	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	0.15 ^a	0.02	-0.01	11.78	0.02	0.84	4	147	0.50	2.05
2	0.19 ^a	0.04	0.01	11.40	0.04	1.37	4	147	0.25	2.12
3	0.12 ^a	0.02	-0.01	4.58	0.02	0.56	4	147	0.69	1.53
4	0.14 ^a	0.02	-0.001	5.24	0.02	0.68	4	147	0.61	2.05
5	0.16 ^a	0.03	-0.01	3.06	0.03	0.94	4	147	0.44	2.08
6	0.14 ^a	0.02	-0.01	30.83	0.02	0.78	4	147	0.54	1.99

1 = Instills confidence through caring; 2 = Supportive learning climate; 3 = Appreciation of life's meaning; 4 = Control versus flexibility; 5 = Respectful sharing; 6 = Total NSPIC survey.

a. Predictors: (Constant), Age, CGPA Employment Status, Race/Ethnicity.

Figure F1

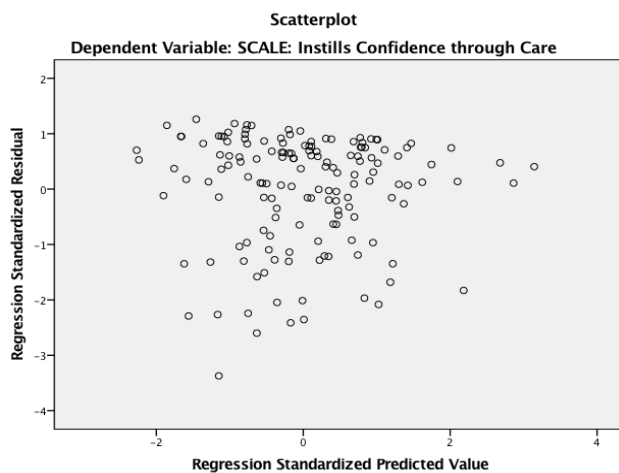
Instills Confidence Through Caring Scatterplot

Table F2

Instills Confidence Through Caring (ICC) Correlations

		Scale 1 - ICC	Age	CGPA	Employment Status	Race Ethnicity
Pearson Correlation	Scale 1 - ICC	1.00	0.11	0.10	-0.04	-0.02
	Age	0.11	1.00	0.06	-0.05	-0.07
	CGPA	0.10	0.06	1.00	0.15	-0.16
	Employment Status	-0.04	-0.05	0.15	1.00	0.03
	Race Ethnicity	-0.02	-0.07	-0.16	0.03	1.00
Sig. (1- tailed)	Scale 1 - ICC		0.09	0.12	0.33	0.39
	Age	0.09		0.24	0.26	0.21
	CGPA	0.12	0.24		0.04	0.03
	Employment Status	0.33	0.26	0.04		0.37
	Race Ethnicity	0.39	0.21	0.03	0.37	
N	Scale 1 - ICC	152	152	152	152	152
	Age	152	152	152	152	152
	CGPA	152	152	152	152	152
	Employment Status	152	152	152	152	152
	Race Ethnicity	152	152	152	152	152

Table F3

Collinearity Statistics

	Collinearity Tolerance	Statistics VIF
(Constant)		
Age	0.99	1.01
CGPA	0.95	1.05
Employment Status	0.97	1.03
Race Ethnicity	0.97	1.03

Table F4

Instills Confidence Through Caring Casewise Diagnostics

Case Number	Standard Residual	Scale 1- ICC	Predicted Value	Residual
98	-3.37	-21	18.70	-39.70

Figure F2

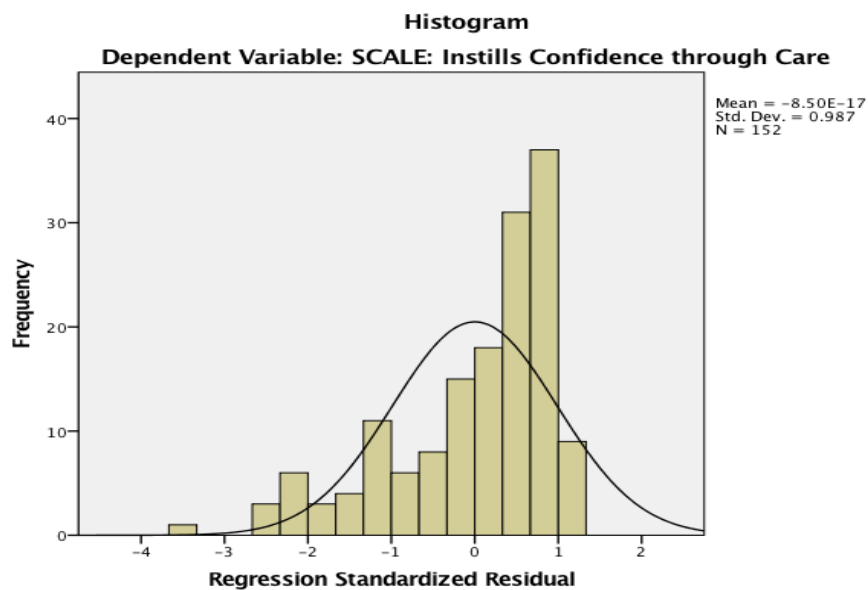
Instills Confidence Through Caring Histogram

Figure F3

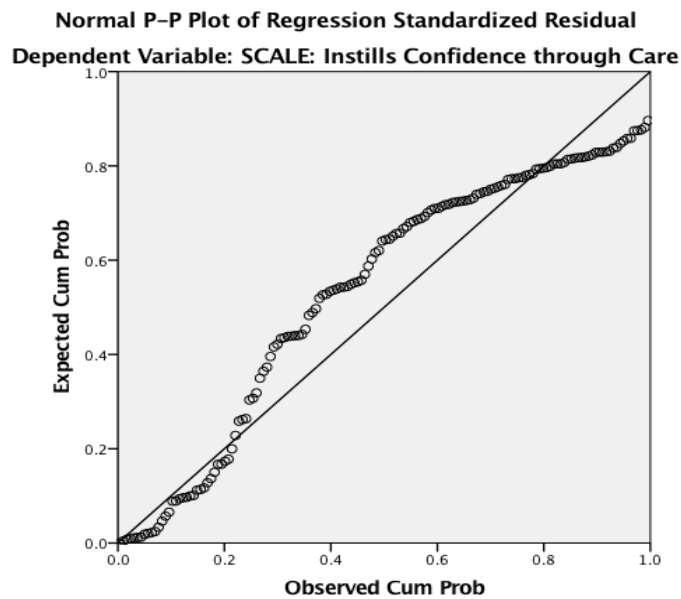
Instills Confidence Through Caring P-P Plot of Regression

Figure F4

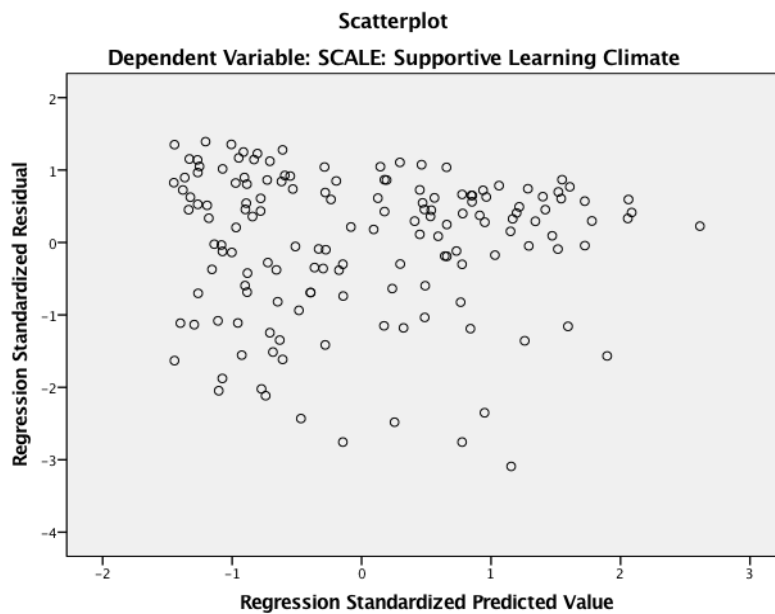
Supportive Learning Climate Scatterplot

Figure F5

Partial Regression Plot (Supportive Learning Climate and Age)

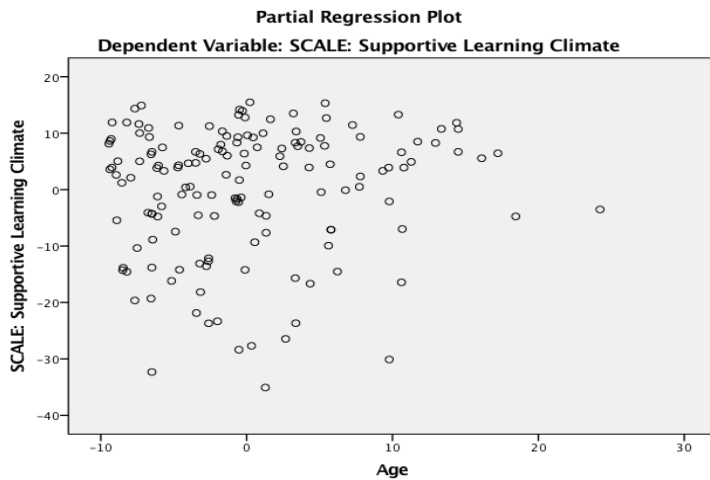


Figure F6

Partial Regression Plot (Supportive Learning Climate and CGPA)

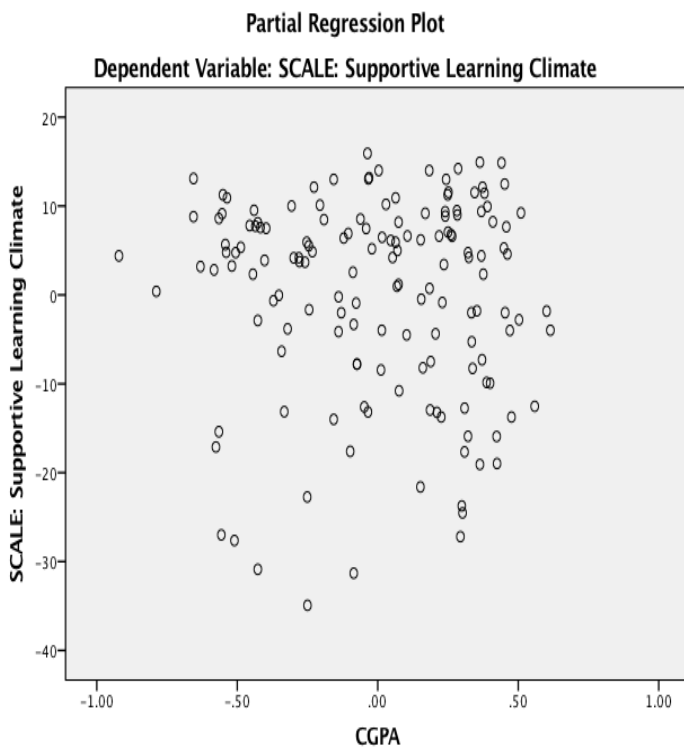


Figure F7

Partial Regression Plot (Supportive Learning Climate and Employment Status)

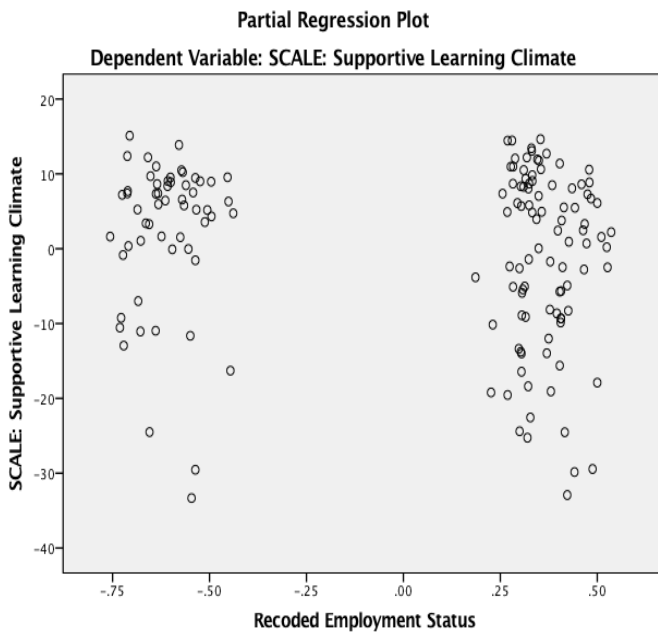


Figure F8

Partial Regression Plot (Supportive Learning Climate and Race Ethnicity)

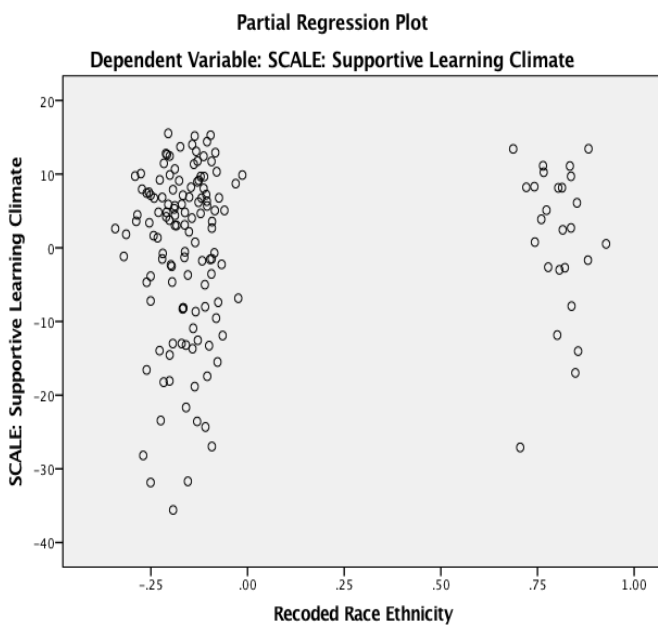


Table F5

Supportive Learning Climate (SLC) Correlations

		Scale 2 - SLC	Age	CGPA	Employment Status	Race Ethnicity
Pearson Correlation	Scale 2 - SLC	1.00	0.08	-0.07	-0.16	0.05
	Age	0.08	1.00	0.06	-0.05	-0.07
	CGPA	-0.07	0.06	1.00	0.15	-0.16
	Employment Status	-0.16	-0.05	0.15	1.00	0.03
	Race Ethnicity	0.05	-0.07	-0.16	0.03	1.00
Sig. (1-tailed)	Scale 2 - SLC		0.15	0.21	0.03	0.26
	Age	0.15		0.24	0.26	0.21
	CGPA	0.21	0.24		0.04	0.03
	Employment Status	0.03	0.26	0.04		0.37
	Race Ethnicity	0.26	0.21	0.03	0.37	
N	Scale 2 - SLC	152	152	152	152	152
	Age	152	152	152	152	152
	CGPA	152	152	152	152	152
	Employment Status	152	152	152	152	152
	Race Ethnicity	152	152	152	152	152

Table F6

Supportive Learning Climate Casewise Diagnostics

Case Number	Standard Residual	Scale 1- ICC	Predicted Value	Residual
44	-3.09	-16	19.25	-35.26

Figure F9

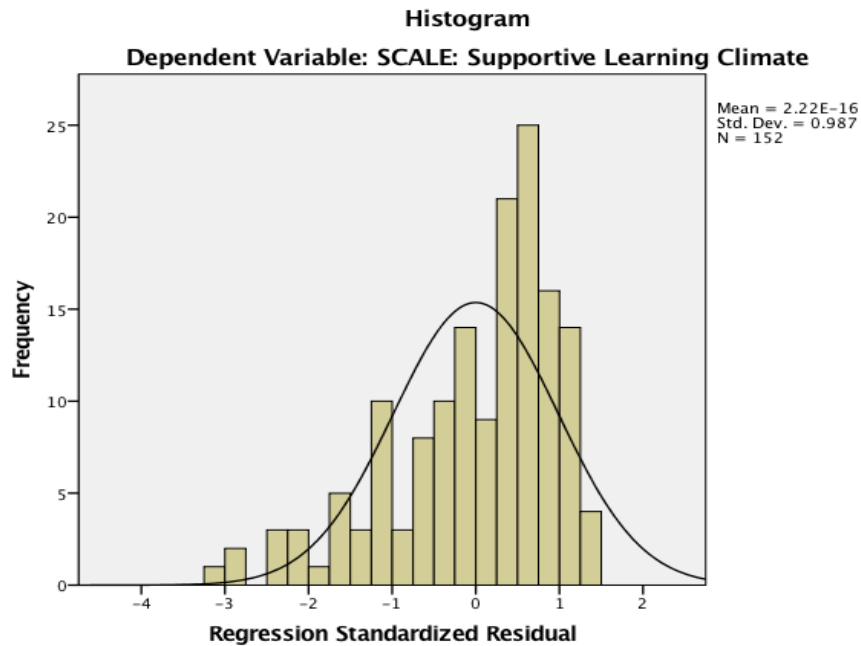
Supportive Learning Climate Histogram

Figure F10

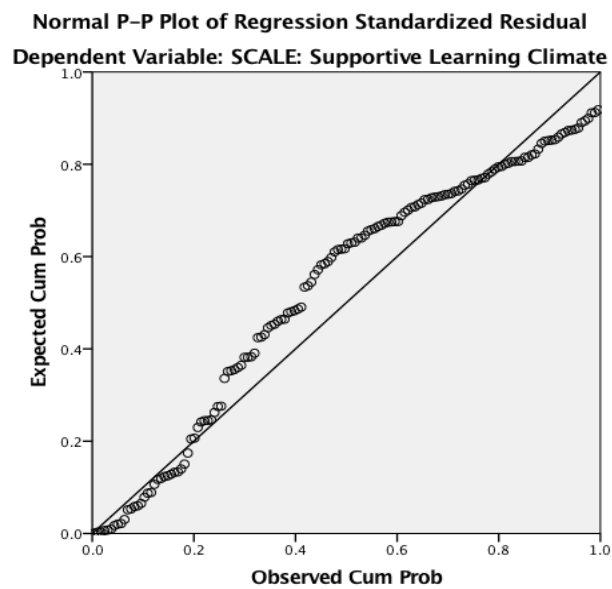
Supportive Learning Climate P-P Plot of Regression

Figure F11

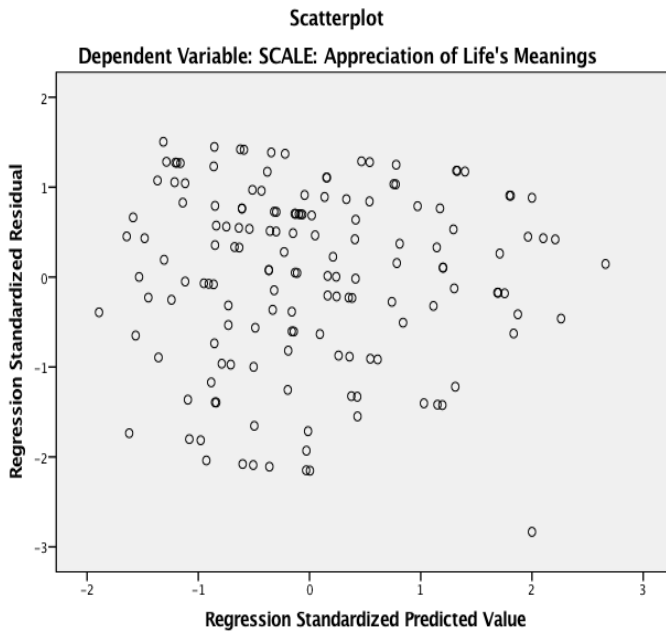
Appreciation of Life's Meaning Scatterplot

Figure F12

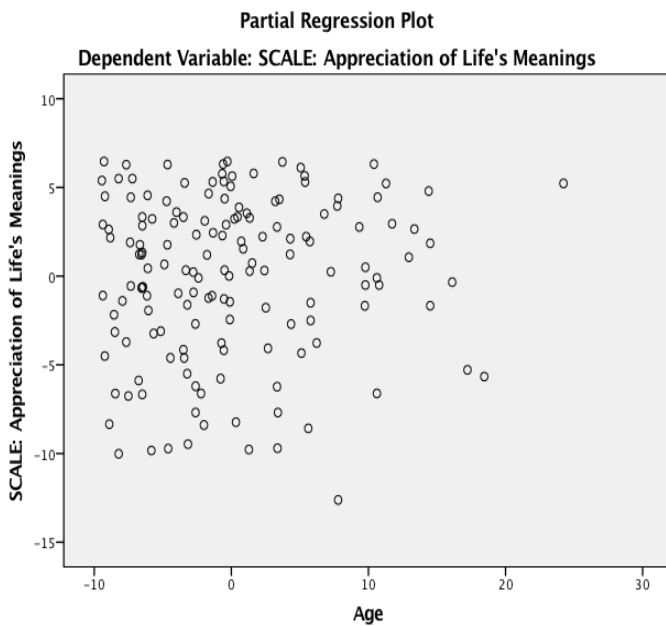
Partial Regression Plot (Appreciation of Life's Meaning and Age)

Figure F13

Partial Regression Plot (Appreciation of Life's Meaning and CGPA)

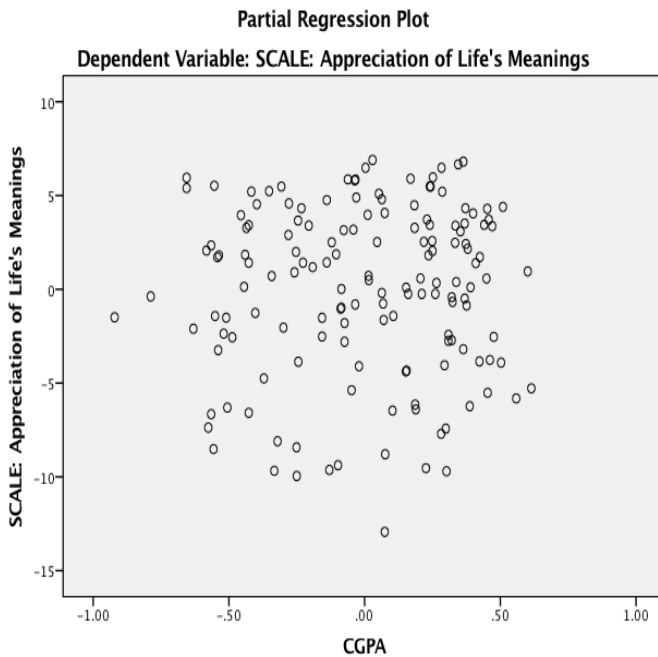


Figure F14

Partial Regression Plot (Appreciation of Life's Meaning and Employment Status)

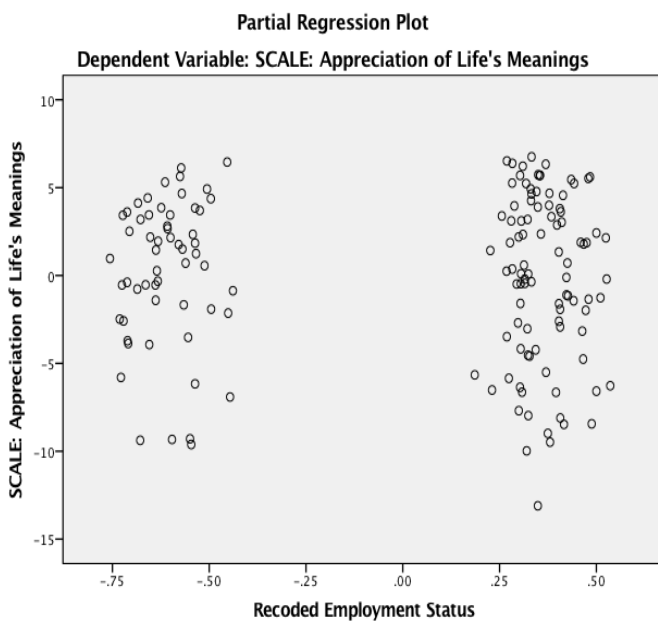


Figure F15

Partial Regression Plot (Appreciation of Life's Meaning and Race Ethnicity)

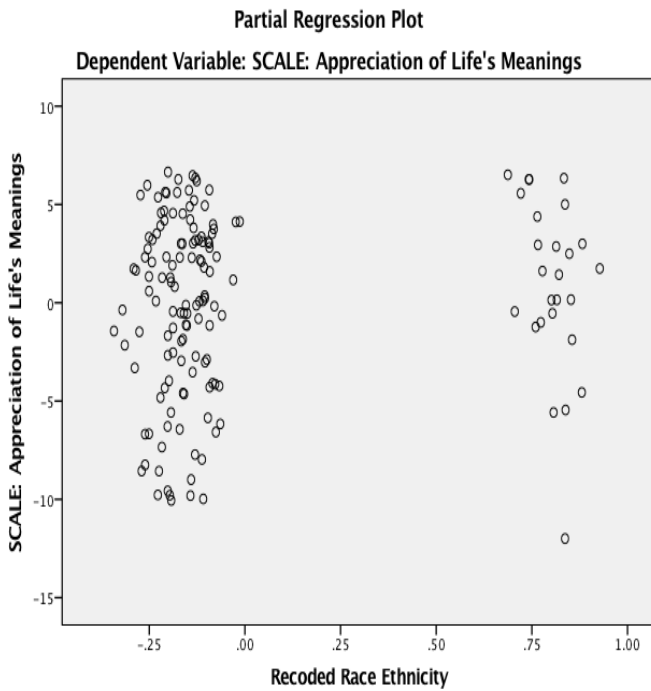


Table F7

Appreciation of Life's Meaning (ALM) Correlations

		Scale 3 - ALM	Age	CGPA	Employment Status	Race Ethnicity
Pearson Correlation	Scale 3 - ALM	1.00	0.07	0.02	-0.04	0.09
	Age	0.07	1.00	0.06	-0.05	-0.07
	CGPA	0.02	0.06	1.00	0.15	-0.16
	Employment Status	-0.07	-0.05	0.15	1.00	0.03
	Race Ethnicity	0.09	-0.07	-0.16	0.03	1.00
Sig. (1- tailed)	Scale 3 - ALM		0.21	0.40	0.32	0.15
	Age	0.21		0.24	0.26	0.21
	CGPA	0.40	0.24		0.04	0.03
	Employment Status	0.32	0.26	0.04		0.37
	Race Ethnicity	0.15	0.21	0.03	0.37	
N	Scale 3 - ALM	152	152	152	152	152
	Age	152	152	152	152	152
	CGPA	152	152	152	152	152
	Employment Status	152	152	152	152	152
	Race Ethnicity	152	152	152	152	152

Figure F16

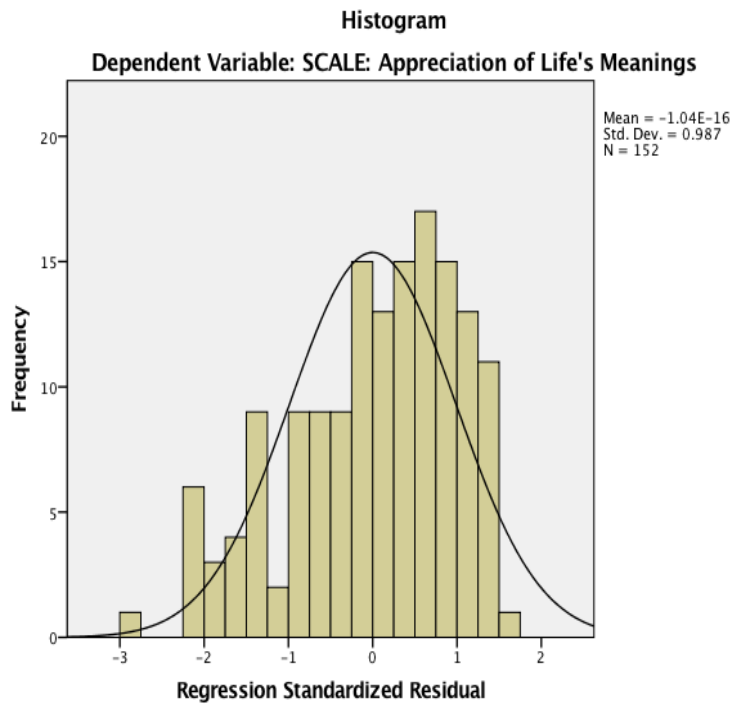
Appreciation of Life's Meaning Histogram

Figure F17

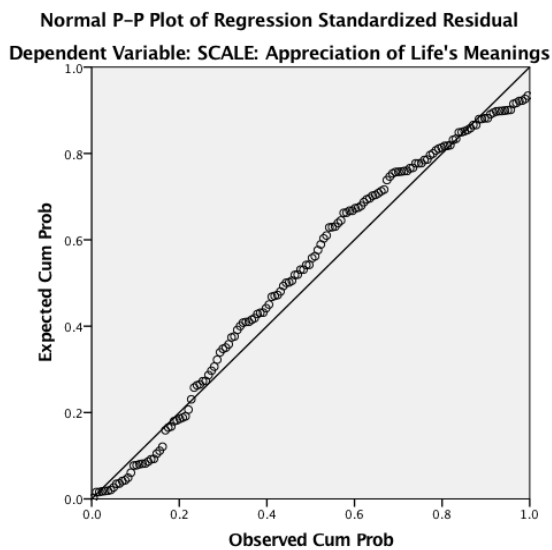
Appreciation of Life's Meaning P-P Plot of Regression

Figure F18

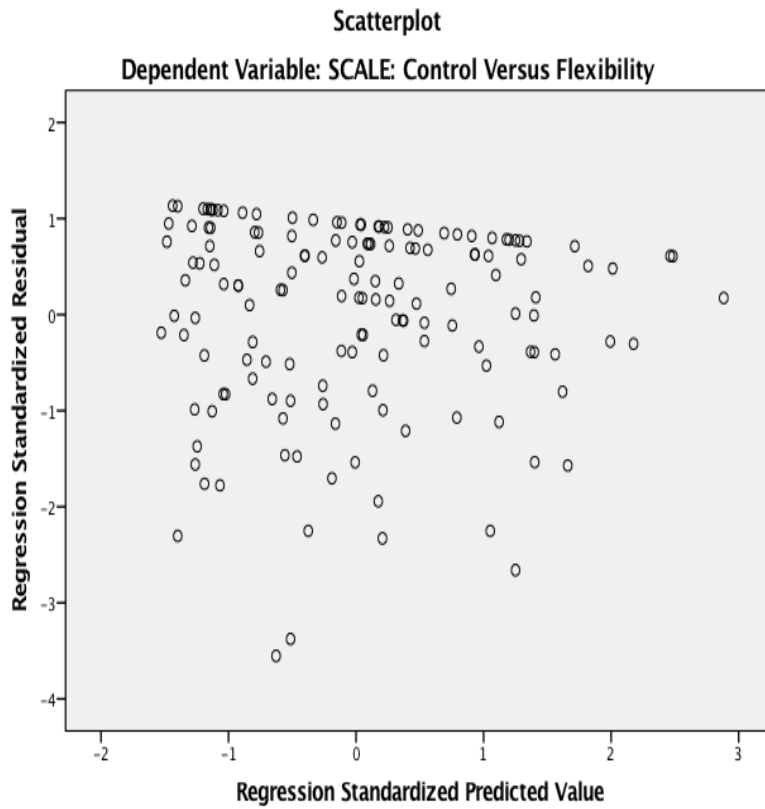
Control Versus Flexibility Scatterplot

Figure F8

Control Versus Flexibility (CVF) Correlations

		Scale 4 - CVF	Age	CGPA	Employment Status	Race Ethnicity
Pearson Correlation	Scale 4 - CVF	1.00	0.01	-0.10	-0.09	0.07
	Age	0.01	1.00	0.06	-0.05	-0.07
	CGPA	-0.10	0.06	1.00	0.15	-0.16
	Employment Status	-0.09	-0.05	0.15	1.00	0.03
	Race Ethnicity	0.07	-0.07	-0.16	0.03	1.00
Sig. (1- tailed)	Scale 4 - CVF		0.45	0.12	0.14	0.21
	Age	0.45		0.24	0.26	0.21
	CGPA	0.12	0.24		0.04	0.03
	Employment Status	0.14	0.26	0.04		0.37
	Race Ethnicity	0.21	0.21	0.03	0.37	
N	Scale 4 - CVF	152	152	152	152	152
	Age	152	152	152	152	152
	CGPA	152	152	152	152	152
	Employment Status	152	152	152	152	152
	Race Ethnicity	152	152	152	152	152

Table F9

Control Versus Flexibility (CVF) Casewise Diagnostics

Case Number	Standard Residual	Scale 4- CVF	Predicted Value	Residual
59	-3.38	-11	6.70	-17.70
109	-3.55	-12	6.62	-18.63

Figure F19

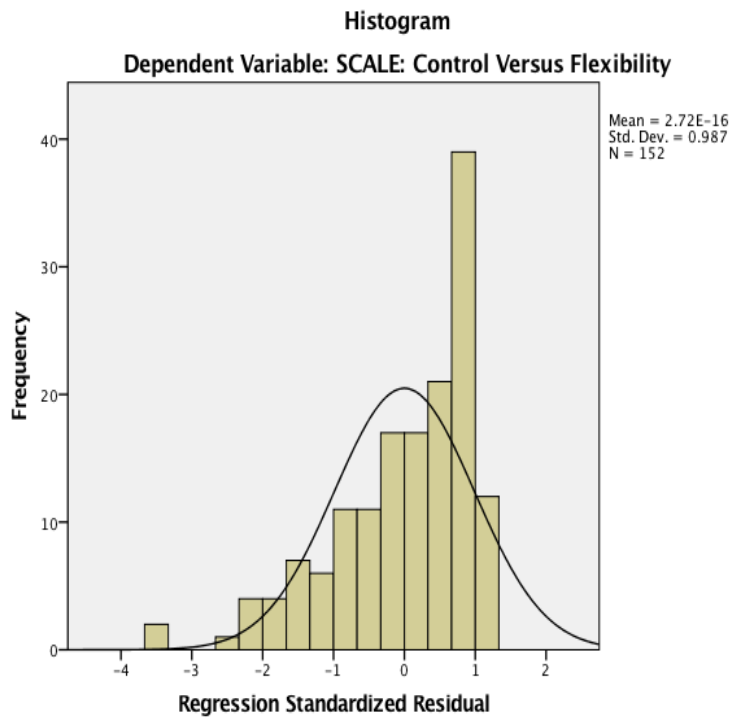
Control Versus Flexibility Histogram

Figure F20

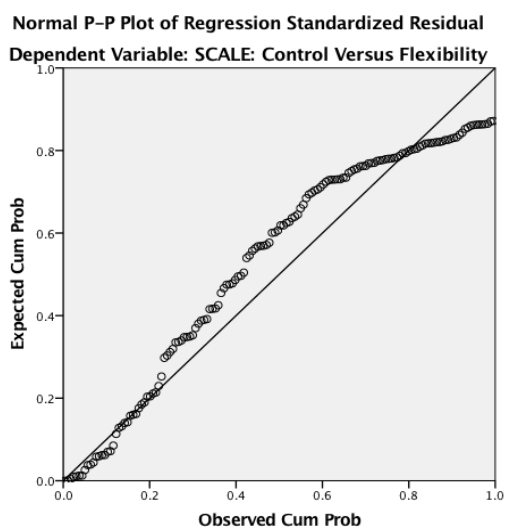
Control Versus Flexibility P-P Plot of Regression

Figure F21

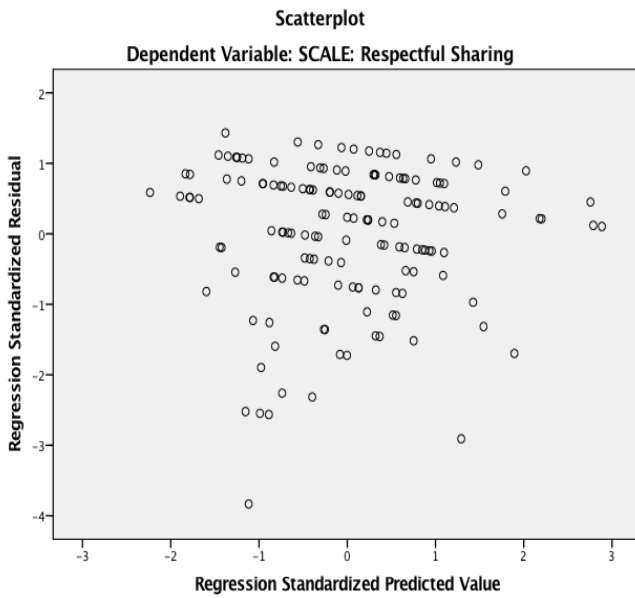
Respectful Sharing Scatterplot

Figure F22

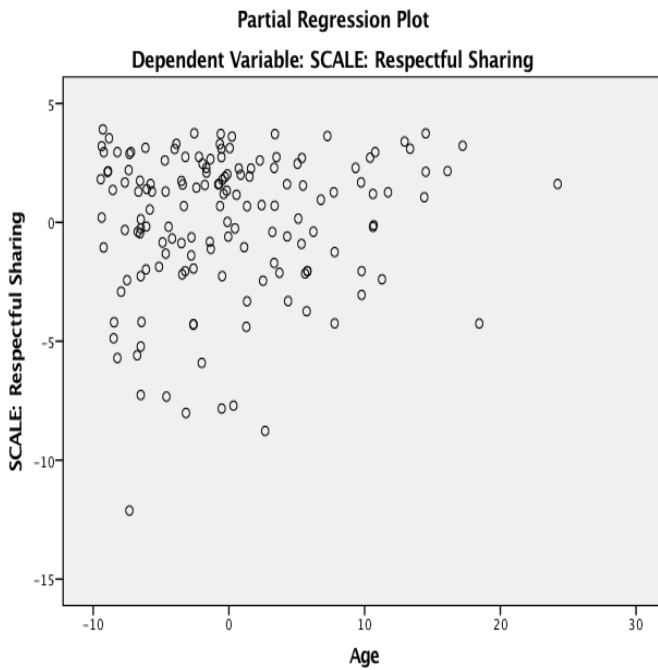
Partial Regression Plot (Respectful Sharing and Age)

Figure F23

Partial Regression Plot (Respectful Sharing and CGPA)

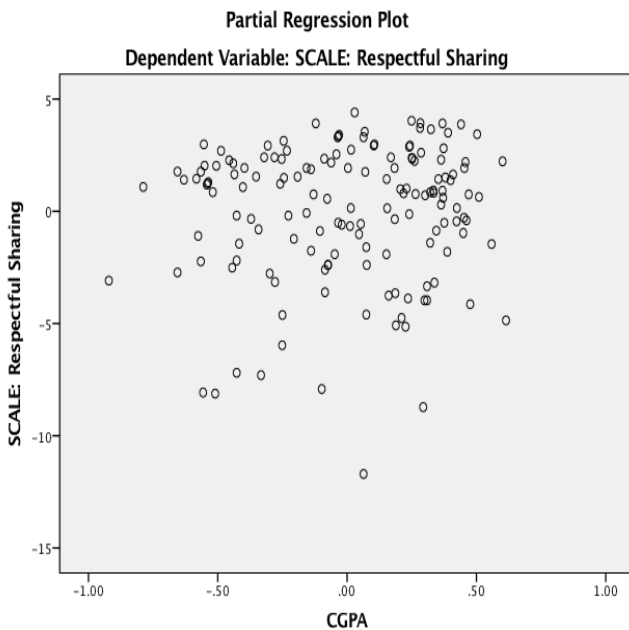


Figure F24

Partial Regression Plot (Respectful Sharing and Employment Status)

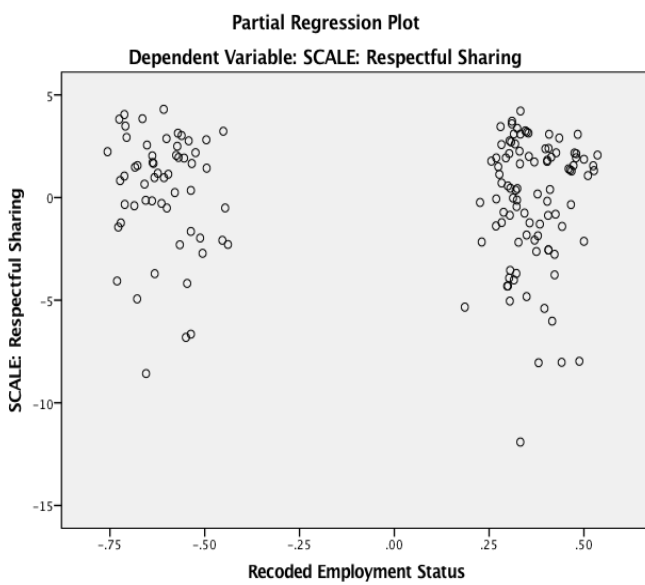


Figure F25

Partial Regression Plot (Respectful Sharing and Race Ethnicity)

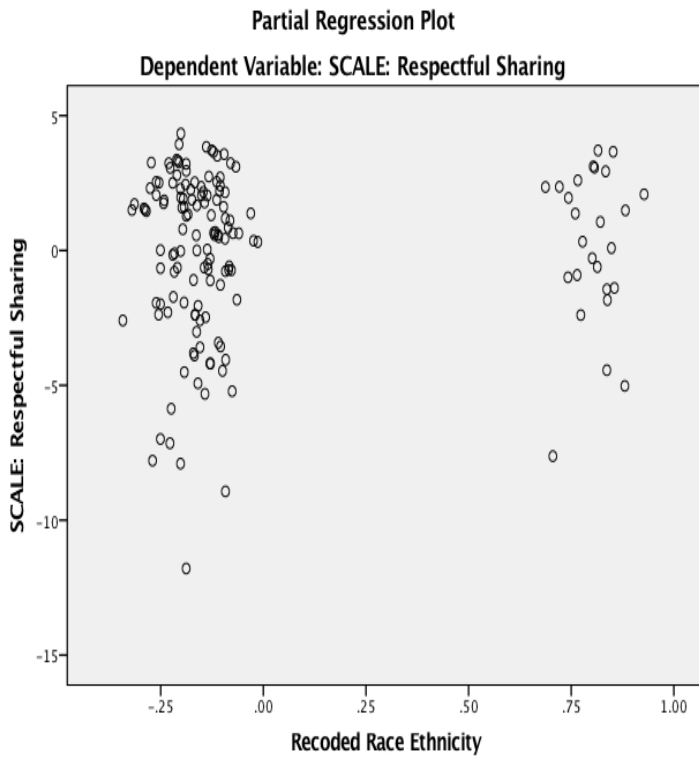


Table F10

Respectful Sharing (RS) Correlations

		Scale 5 - RS	Age	CGPA	Employment Status	Race Ethnicity
Pearson Correlation	Scale 5 - RS	1.00	0.12	0.06	-0.08	0.01
	Age	0.12	1.00	0.06	-0.05	-0.07
	CGPA	0.06	0.06	1.00	0.15	-0.16
	Employment Status	-0.08	-0.05	0.15	1.00	0.03
	Race Ethnicity	0.01	-0.07	-0.16	0.03	1.00
Sig. (1- tailed)	Scale 5 - RS		0.07	0.22	0.18	0.45
	Age	0.07		0.24	0.26	0.21
	CGPA	0.22	0.24		0.04	0.03
	Employment Status	0.18	0.26	0.04		0.37
	Race Ethnicity	0.45	0.21	0.03	0.37	
N	Scale 5 - RS	152	152	152	152	152
	Age	152	152	152	152	152
	CGPA	152	152	152	152	152
	Employment Status	152	152	152	152	152
	Race Ethnicity	152	152	152	152	152

Table F11

Respectful Sharing Casewise Diagnostics

Case Number	Standard Residual	Scale 1- ICC	Predicted Value	Residual
100	-3.83	-7	4.74	-11.74

Figure F26

Respectful Sharing Histogram

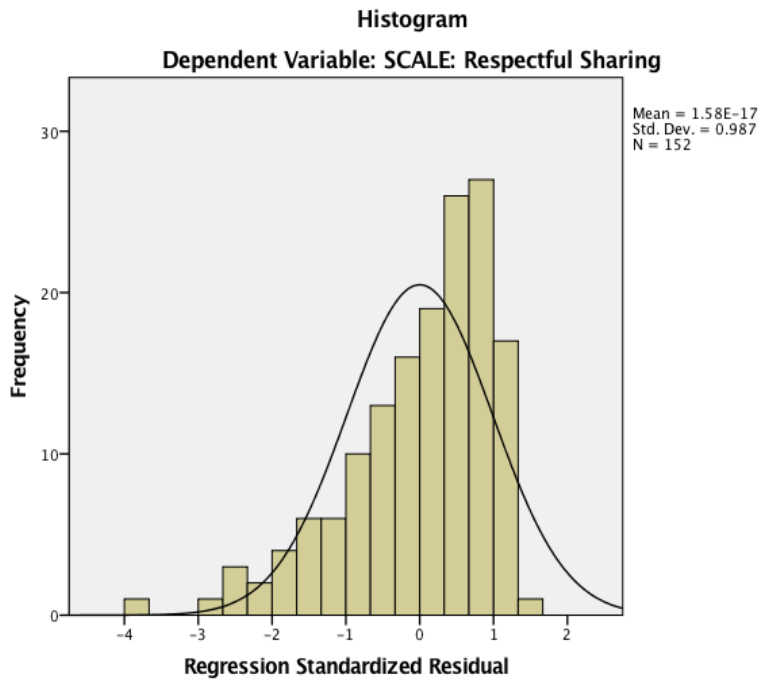


Figure F27

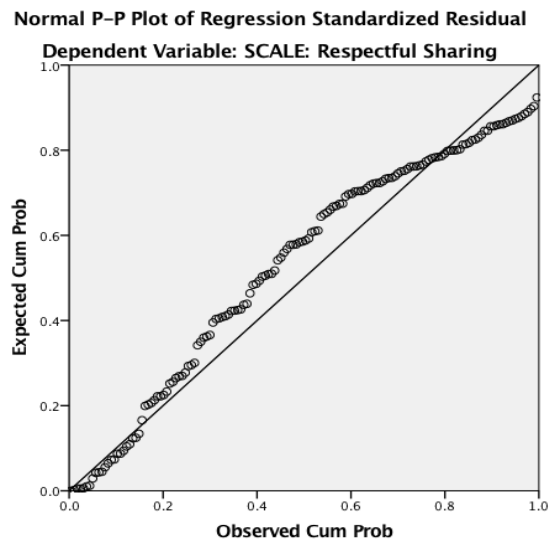
Respectful Sharing P-P Plot of Regression

Figure F28

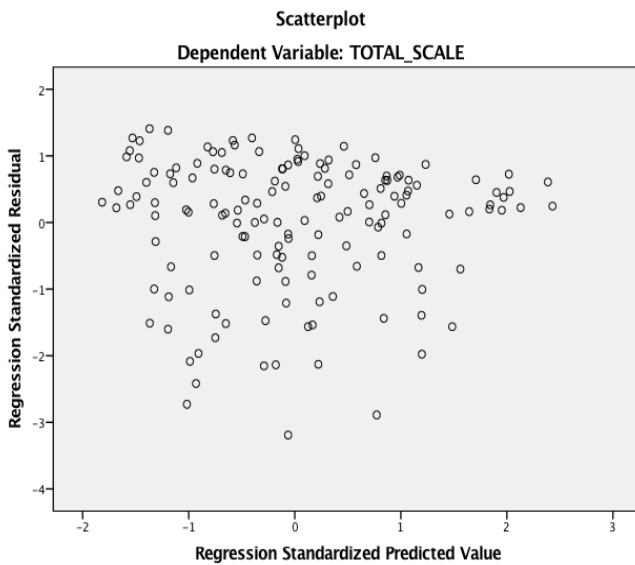
Total NSPIC Survey Scatterplot

Figure F29

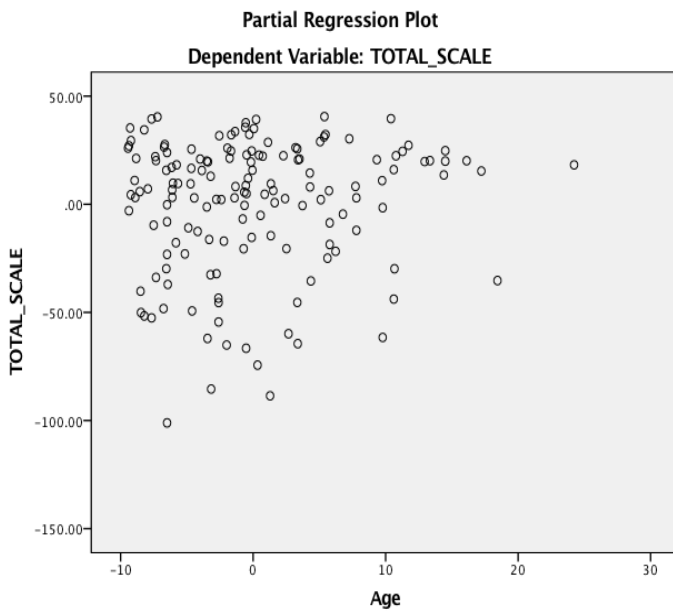
Partial Regression Plot (Total NSPIC Survey and Age)

Figure F30

Partial Regression Plot (Total NSPIC Survey and CGPA)

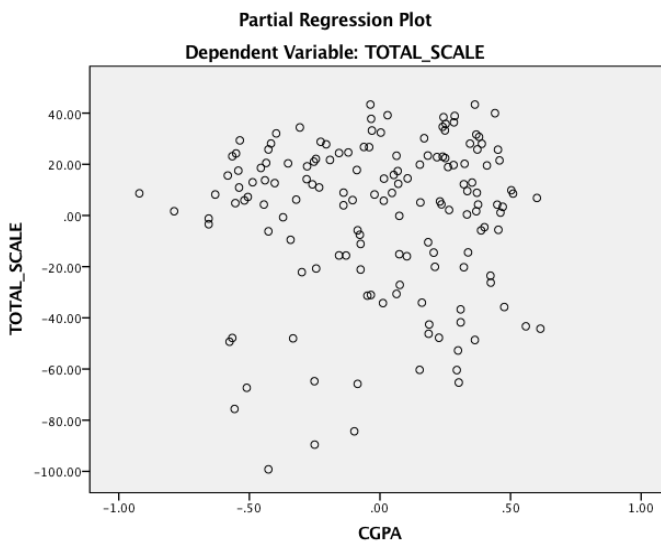


Figure F31

Partial Regression Plot (Total NSPIC Survey and Employment Status)

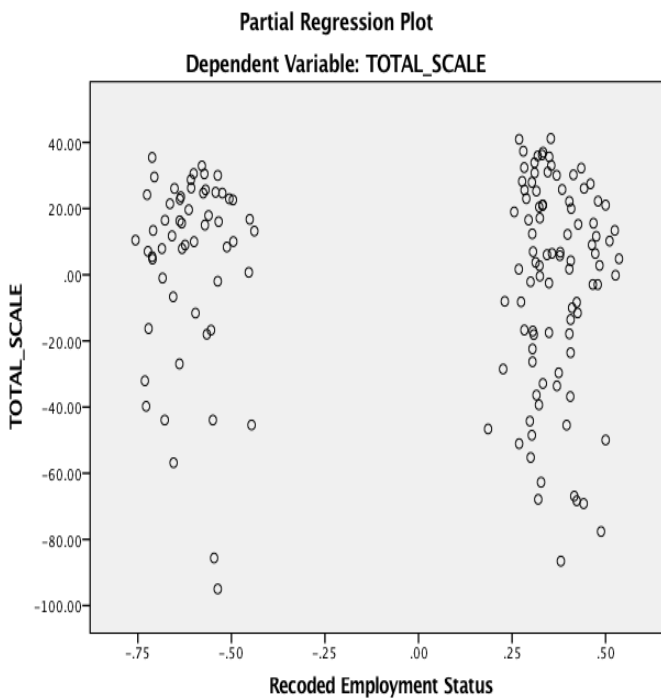


Figure F32

Partial Regression Plot (Total NSPIC Survey and Race Ethnicity)

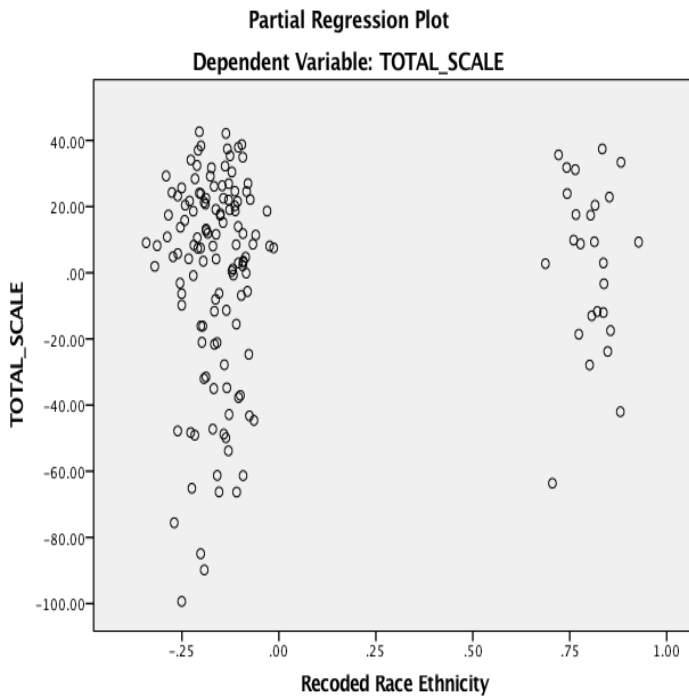


Table F12

Total NSPIC (Scale 6) Correlations

		Scale 6 - NSPIC	Age	CGPA	Employment Status	Race Ethnicity
Pearson Correlation	Scale 6 - NSPIC	1.00	0.10	0.01	-0.10	0.04
	Age	0.10	1.00	0.06	-0.05	-0.07
	CGPA	0.01	0.06	1.00	0.15	-0.16
	Employment Status	-0.10	-0.05	0.15	1.00	0.03
	Race Ethnicity	0.04	-0.07	-0.16	0.03	1.00
Sig. (1- tailed)	Scale 6 - NSPIC		0.12	0.47	0.11	0.33
	Age	0.12		0.24	0.26	0.21
	CGPA	0.47	0.24		0.04	0.03
	Employment Status	0.11	0.26	0.04		0.37
	Race Ethnicity	0.33	0.21	0.03	0.37	
N	Scale 6 - NSPIC	152	152	152	152	152
	Age	152	152	152	152	152
	CGPA	152	152	152	152	152
	Employment Status	152	152	152	152	152
	Race Ethnicity	152	152	152	152	152

Table F13

Total NSPIC Survey Casewise Diagnostics

Case Number	Standard Residual	Scale 1- ICC	Predicted Value	Residual
98	-3.19	-46	52.38	-98.38

Figure F33

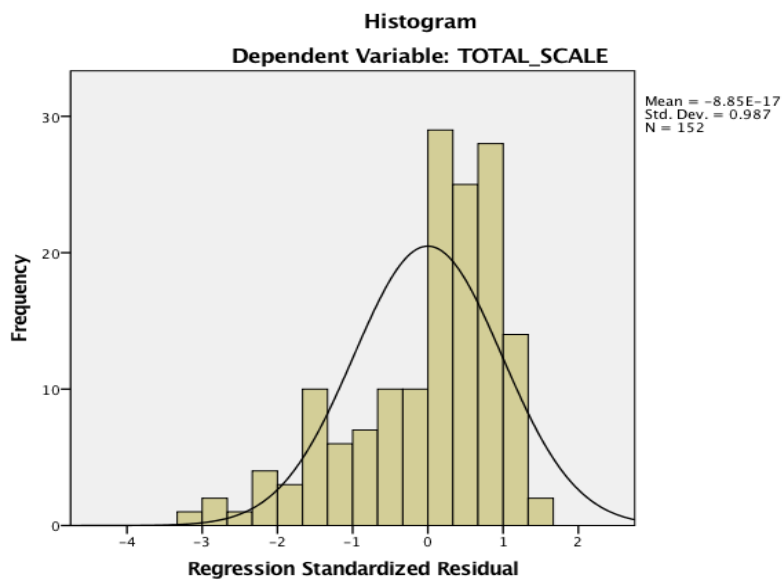
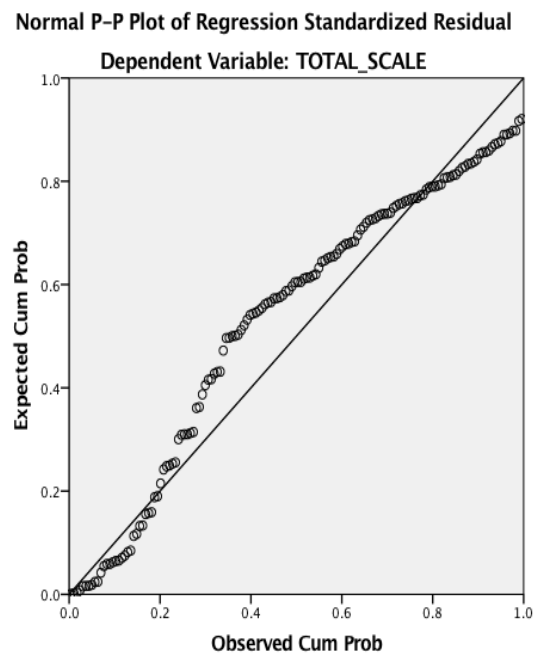
Total NSPIC Survey Histogram

Figure F34

Total NSPIC Survey P-P Plot of Regression

Appendix G

Reliability Statistics

Table G1

Instills Confidence Through Caring (ICC) Inter-Item Correlation Matrix

NSPIC item #	1	2	3	4	5	6	7	8	21	22	23
1	1.00										
2	0.79	1.00									
3	0.69	0.74	1.00								
4	0.74	0.79	0.88	1.00							
5	0.70	0.74	0.85	0.90	1.00						
6	0.16	0.35	0.42	0.49	0.48	1.00					
7	0.18	0.30	0.42	0.45	0.44	0.75	1.00				
8	0.44	0.50	0.57	0.58	0.53	0.49	0.41	1.00			
21	0.29	0.41	0.49	0.52	0.54	0.37	0.39	0.52	1.00		
22	0.09	0.16	0.27	0.22	0.21	0.41	0.30	0.27	0.21	1.00	
23	0.18	0.27	0.37	0.36	0.34	0.50	0.41	0.39	0.34	0.57	1.00

Table G2

Instills Confidence Through Caring Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
1. Shows genuine interest in patients and their care	18.13	131.26	0.61	0.72	0.89
2. Displays kindness to me and others	18.30	126.39	0.72	0.74	0.88
3. Instills in me a sense of hopefulness for the future	18.44	122.55	0.82	0.81	0.88
4. Makes me feel that I can be successful	18.32	122.18	0.85	0.88	0.88
5. Helps me envision myself as a professional nurse	18.45	123.45	0.82	0.84	0.88
6. Makes me feel like a failure	18.01	135.07	0.61	0.69	0.89
7. Does not believe in me	17.89	138.54	0.55	0.59	0.89
8. Cares about me as a person	18.66	130.43	0.65	0.48	0.89
21. Inspires me to continue my knowledge and skill development	18.13	135.41	0.56	0.41	0.89
22. Makes me nervous in the clinical environment	19.48	134.65	0.35	0.36	0.91
23. Does not trust my judgment in the clinical lab environment	18.19	137.68	0.52	0.44	0.90

Table G3

Supportive Learning Climate Inter-Item Correlation Matrix

NSPIC item #	11	13	14	15	16	17	18	19	20	24
11	1.00									
13	0.29	1.00								
14	0.32	0.56	1.00							
15	0.24	0.56	0.61	1.00						
16	0.31	0.57	0.63	0.56	1.00					
17	0.29	0.60	0.63	0.51	0.76	1.00				
18	0.19	0.58	0.61	0.52	0.72	0.79	1.00			
19	0.20	0.58	0.63	0.59	0.76	0.75	0.82	1.00		
20	0.24	0.14	0.14	0.22	0.11	0.13	0.18	0.13	1.00	
24	0.37	0.50	0.50	0.54	0.53	0.51	0.50	0.55	0.20	1.00

Table G4

Supportive Learning Climate Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
11. Inappropriately discloses personal information about me to others	14.03	132.22	0.36	0.24	0.90
13. Acknowledges his or her own limitations or mistakes	15.06	117.26	0.68	0.48	0.88
14. Makes himself or herself available to me	14.32	122.99	0.72	0.55	0.88
15. Clearly communicates his or her expectations	14.63	120.82	0.67	0.51	0.88
16. Serves as a trusted resource for personal problem solving	14.93	113.19	0.78	0.69	0.87
17. Offers support during stressful times	14.96	112.74	0.79	0.72	0.87
18. Accepts my negative feelings, while helping me to see the positive	15.04	115.15	0.78	0.75	0.87
19. Allows me to express my true feelings	14.80	113.93	0.79	0.76	0.87
20. Discourages independent problem solving	14.65	134.52	0.21	0.11	0.91
24. Seems caught up in his or her own priorities, rather than responding to my needs	14.55	119.76	0.65	0.45	0.88

Table G5

Appreciation of Life's Meaning Inter-Item Correlation Matrix

NSPIC item #	27	28	29
27	1.00		
28	0.76	1.00	
29	0.56	0.64	1.00

Table G6

Appreciation of Life's Meaning Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
27. Helps me find personal meaning in my experiences	1.47	10.61	0.71	0.58	0.77
28. Encourages me to see others' perspectives about life	1.30	10.84	0.79	0.64	0.72
29. Helps me understand the spiritual dimensions of life	2.85	9.63	0.64	0.43	0.86

Table G7

Control Versus Flexibility Inter-Item Correlation Matrix

NSPIC item #	25	26	30	31
25	1.00			
26	0.58	1.00		
30	0.36	0.25	1.00	
31	0.44	0.34	0.52	1.00

Table G8

Control Versus Flexibility Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
25. Makes demands on my time that interfere with my basic personal needs	4.87	19.24	0.58	0.41	0.65
26. Focuses on completion of patient care tasks, rather than the patient's needs	4.80	21.82	0.48	0.35	0.70
30. Is inflexible when faced with unexpected situations	5.35	18.04	0.49	0.29	0.70
31. Uses grades to maintain control of students	5.17	16.96	0.58	0.35	0.64

Table G9

Respectful Sharing Inter-Item Correlation Matrix

NSPIC item #	9	10	12
9	1.00		
10	0.79	1.00	
12	0.16	0.01	1.00

Table G10

Respectful Sharing Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
9. Respects me as an unique individual	3.40	4.51	0.62	0.66	0.02
10. Is attentive to me when we communicate	3.00	5.89	0.51	0.65	0.28
12. Does not reveal any of his or her personal side	3.88	7.33	0.10	0.06	0.88